PUNJAB

DISTRICT GAZETTEERS

VOLUME XV A.

LUDHIANA DISTRICT

AND

MALER KOTLA STATE,

WITH MAPS.

1904.

Lahore:
PRINTED AT THE "CIVIL AND MILITARY GAZETTE" PRESS.

1907.

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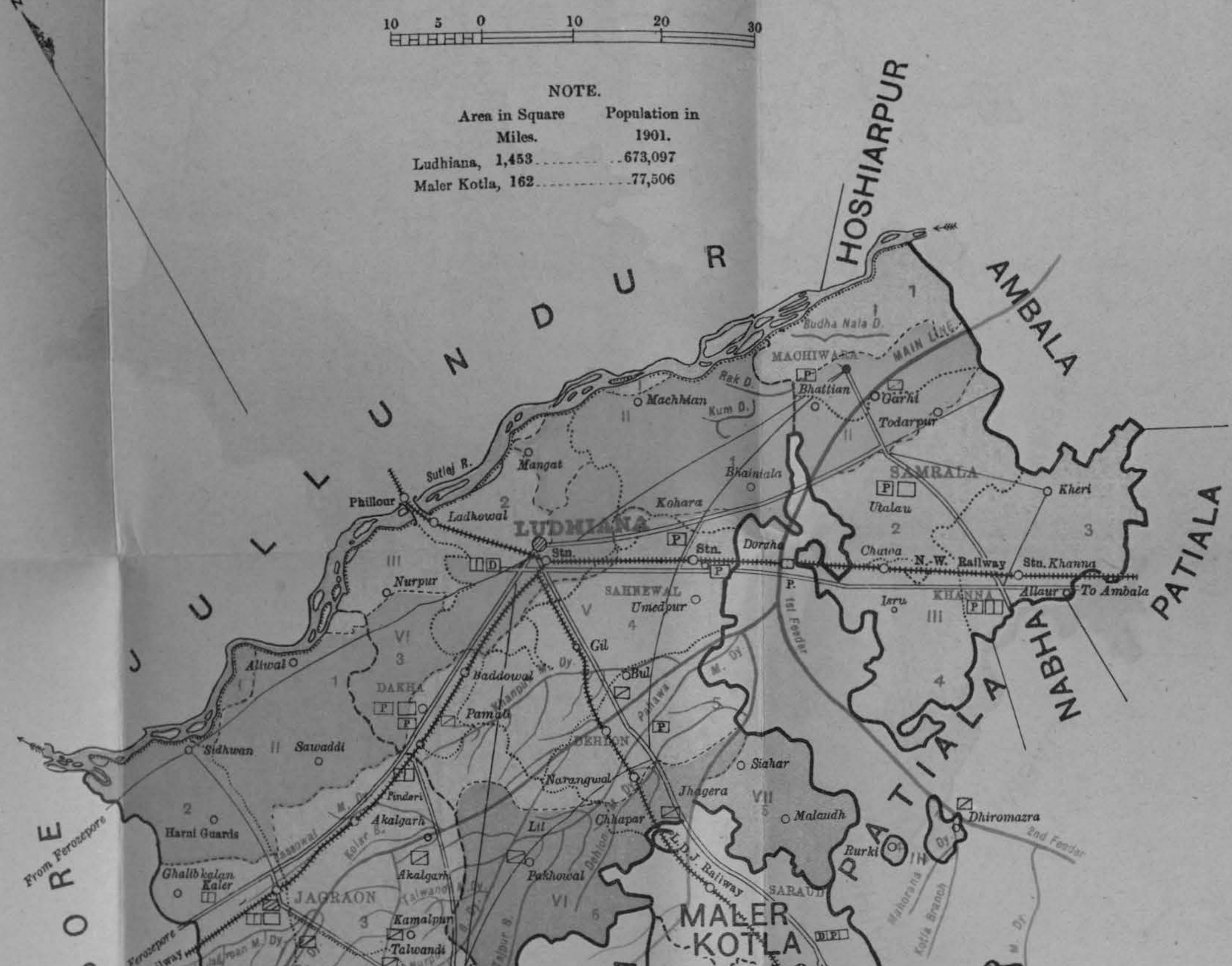
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PUNJAB

Map
OF THE
LUDHIANA DISTRICT
AND
MALER KOTLA STATE.

(No. 1).

Scale—1 Inch = 8 Miles.



NOTE.

	Area in Square Miles.	Population in 1901.
Ludhiana,	1,453	673,097
Maler Kotla,	162	77,506

ASSESSMENT CIRCLES.

TAHSIL SAMRALA.

I. Bet .... Blue.
II. Dhai, Nicha ...... Yellow.
III. ,, Uncha .... Pink.

TAHSIL LUDHIANA.

I. Bet 1st, Kacha .. Blue.
II. ,, Pacca ..... Yellow.
III. ,, 2nd ...... Pink.
IV. Dhal, Nicha ..... Yellow.
V. ,, Uncha .... Pink.
VI. Tihara .... Green.
VII. Pawadh .... Sepia.
VIII. Jangal .... Light Yellow.

TAHSIL JAGRAON.

I. Bet .... Blue.
II. Dhai, Nicha ...... Yellow.
III. ,, Uncha ..... Pink.

QANUNGOS' CIRCLES.

TAHSIL SAMRALA.

1. Machiwara.
2. Utalan.
3. Khanna.
4. Isru.

TAHSIL LUDHIANA.

1. Kum.
2. Ludhiana.
3. Dakha.
4. Sahnewal.
5. Malaudh.
6. Pakhowal.
7. Sahna.

TAHSIL JAGRAON.

1. Sawaddi.
2. Jagraon.
3. Akalgarh.
4. Raikot.

REFERENCES.

Head-quarters of District or State ...... LUDHIANA
,, ,, ,, Tahsil ...... SAMRALA
,, ,, ,, Thana ...... SAHNEWAL
Census Towns over 20,000 ......
,, ,, ,, 10,000 ......
Others ......
Villages ......
Tahsil Boundary ......
Railways ......
Metalled Road ......
Unmetalled ,, ...
Canal ......
Assessment Circles ...... Color-wash
Qanungos' ,, ...
River ......

REST-HOUSES

District ......
Police ...... P
Canal ......
Public Works Department ......
Dák Bungalow ...... D

Photo.-Mechl. and Litho. Dept., Thomason College, Roorkee.

Litho., February 1906—No. -2072-700

LUDHIANA.

The following maps will be found useful for reference :—

I.—SURVEY DEPARTMENT MAPS.

1. Punjab Standard Sheets. Scale 1″=1 mile, Nos. 237, 238, 251, 252, 253, 268, 269 and 270.

2. Sketch map of the Ludhiána District. Scale 1″=8 miles, published in 1898.

II.—SETTLEMENT MAPS OF 1878—1883.

1. General map showing Administrative Divisions, Railways, &c.

2. Assessment Circles and Revenue Rates.

3. Prevailing tribe of proprietors in each village.

4. Political divisions of the country at the outbreak of the 1st Sikh War.

5. Villages held in *jágír*.

TABLE OF CONTENTS.

CHAPTER I.—DESCRIPTIVE.

CHAPTER II.—ECONOMIC.

CHAPTER III.—ADMINISTRATIVE.

CHAPTER IV.—PLACES OF INTEREST.

CHAPTER I.—DESCRIPTIVE.

Section A.—Physical Aspects.

CHAPTER I.—DESCRIPTIVE—CONTINUED.

Section A.—Physical Aspects—concluded.

Section B.—History.

CHAPTER I.—DESCRIPTIVE—CONTINUED.

Section B.—History—concluded.

Section C.—Population.

CHAPTER I.—DESCRIPTIVE—CONTINUED.

Section C.—Population—continued

CHAPTER I.—DESCRIPTIVE—CONTINUED.

Section C.—Population—continued.

CHAPTER I.—DESCRIPTIVE—CONCLUDED.

Section C.—Population—concluded.

CHAPTER II.—ECONOMIC.

Section A.—Agriculture.

CHAPTER II.—ECONOMIC—CONTINUED.

Section A.—Agriculture—continued.

CHAPTER II.—ECONOMIC—CONTINUED.

Section A.—Agriculture—continued.

CHAPTER II.—ECONOMIC—continued.

Section A.—Agriculture—concluded.

Section B.—Rents, Wages and Prices.

Section C.—Forests.

CHAPTER II.—ECONOMIC—continued.

Section D.—Mines and Minerals.

Section E.—Arts and Manufactures.

Section F.—Commerce and Trade

Section G.—Means of Communication.

CHAPTER II.—ECONOMIC—CONCLUDED.

Section G.—Means of Communication—concluded.

Section H—Famine.

CHAPTER III.—ADMINISTRATIVE.

Section A.—General Administration and Administrative Divisions.

Section B.—Justice.

Section C.—Land Revenue.

CHAPTER III.—ADMINISTRATIVE—CONTINUED.

Section C.—Land Revenue—continued.

CHAPTER III.—ADMINISTRATIVE—CONTINUED.

Section III.—Land Revenue—concluded.

Section D.—Miscellaneous Revenues.

Section E.—Local and Municipal.

Section F.—Public Works.

Section G.—Army.

Section H.—Police and Jails.

Section I.—Education and Literacy.

CHAPTER III.—ADMINISTRATIVE—CONCLUDED.

Section J.—Medical.

CHAPTER IV.—PLACES OF INTEREST.

APPENDIX.

CHAPTER I.—DESCRIPTIVE.

Section A.—Physical Aspects.

CHAP. I, A.

Physical Aspects.

Ludhiána is the most south-eastern of the five districts of the Jullundur Division. Its main portion lies between 30° 33′ and 31° 1′ North Latitude and 75° 25′ and 76° 27′ East Longitude. Before the passing of the Riverain Boundaries Act the Sutlej formed the northern boundary of the District, and roughly speaking it may still be so considered. There are however villages to the south of the river which belong to Jullundur, and others to the north of it belonging to Ludhiána. Between Ludhiána and Hoshiárpur the river is still the boundary. To the east the District adjoins Ambála, and to the west Ferozepore, while it is separated from Delhi and Hissár by the territories of Patiála, Jínd, Nábha, and Máler Kotla which cut into it on the south; to the north, east and west its boundaries are fairly symmetrical. The political history of our acquisitions in these parts accounts for the detached villages stretching as far south as 30° 5′, while two or three groups of Patiála villages lie within Samrála Tahsil. The compact portion of the District has a length along the Sutlej of nearly 60 miles; while the breadth, north and south, is about 24 miles, except where Patiála territory juts into it between the Ludhiána and Samrála Tahsils.

The District is divided into three Tahsils—Samrála to the east, Jagráon to the west, and Ludhiána in the middle. Half way along the northern border of the District and six miles south of the Sutlej is the town of Ludhiána, the head-quarters of the administration. Besides lying on the Grand Trunk Road 191 miles from Delhi and 76 from Ferozepore, Ludhiána is an important junction on the North-Western Railway, from which the Ludhiána-Dhuri-Jakhal and Ludhiána-Ferozepore Railways take off. With the exception of those outlying villages which lie among the Native States to the south, no part of the District is more than 30 miles from head-quarters. All important places are linked up either by rail or metalled roads so that the communications of the District are the most complete in the Province.

The outlying or Jangal villages number 39, with an area of 125 square miles.

Natural divisions.

The mean elevation of the District is about 800 feet above sea-level, at Samrála the elevation is 870 feet, at Ludhiána 806 feet and at Jagráon 764 feet. The District has no very striking natural features. The main physical divisions are a low-lying alluvial tract along the river (here called Bet) and the uplands (Dháia.)

Bet and Dháia.

The river Sutlej.

The river Sutlej debouches from the Siwáliks just above Rupar some 20 miles east of the boundary of Samrála Tahsil, it flows due west along the District for some 60 miles, and turns, as it leaves

CHAP. I, A. — Physical Aspects. The river Sutlej.

Jagráon Tahsil, slightly to the north towards its junction with the Beás. When at its lowest, in the middle of the cold weather, the river is very shallow and the main stream seldom exceeds 150 yards in breadth and 3 to 4 feet in depth. Except during the rainy season it is fordable at almost all points but when in flood it spreads two or three miles over the country and even where confined by the Phillaur Bridge Works to its narrowest, measures nearly a mile of running stream. The opening of the Sirhind Canal has, of late years, considerably reduced, except during flood, the volume of water in the river. The Ferries are noticed in Chapter II (page).

Like all Punjab rivers the Sutlej constantly shifts its course during floods. During the last 20 years (1882 to 1903) it has at several points moved about a mile towards the south of its former bed in the Ludhiána and Samrála Tahsils, and about a mile towards the north in the Jagráon Tahsil, near Talwara. According to local tradition it flowed about 120 years ago just under the ridge which separates the Dháia from the Bet. The old towns and villages of Bahlolpur, Máchhiwára, Kum, &c., were built on its banks. The division between uplands and lowlands is everywhere distinctly marked by the ridge or high bank (*dha*), between which and the present bed of the river lies the Bet. To the east of the District the river and the high bank are five or six miles apart, and this is the width of the Bet for the first 30 miles, but below the town of Ludhiána it gradually narrows until in Jagráon Tahsil it is only one or two miles in width and finally disappears.

The Budha Nála.

Immediately under the high bank along the old course of the Sutlej now runs a perennial stream called the Budha Nála which takes its rise near Chamkaur, in the Rupar Tahsil of Ambála, and enters this District under Bahlolpur. Passing just below the town of Ludhiána it flows into the Sutlej in Tahsil Jagráon, a few miles east of the Ferozepore border. When swollen by floods in the rains it has a considerable volume of water and covers the surrounding country but ordinarily, although there is in places a good deal of swamp, the stream is only a few yards across. The water, except during floods, is perfectly clear and is used freely for drinking purposes. It is rarely, if ever, used for irrigation. In explanation of this fact it is reported to contain a strong infusion of salts, but the main reason is that it is easier and more economical to dig small unlined wells, in which water is obtained at from 2 to 10 feet below the surface.

To the west the banks of the Budha Nála are high and the land is cultivated right up to the edge. In the cold weather the Budha can be crossed on foot at certain points, but generally the bottom is treacherous, and in the rainy season, even at the fords, the water is too deep for wading. It is spanned by a bridge at Ludhiána on the Jullundur road, and by another at Máchhiwára which was rebuilt in 1900, but at flood time the Bet is almost

CHAP. I, A.

Physical Aspects.

entirely cut off from the rest of the District. The floods however being caused only by rainfall in the plains soon subside.

The Dháia or upland.

From the high bank the Dháia or upland plain stretches to the south unbroken by hill or stream except in the immediate neighbourhood of the high bank, or by a sand ridge. Sand ridges are found everywhere in the Dháia being confined in Samrála Tahsil to two clearly marked belts two or three miles wide which run south-west and may indicate the course of old hill-stream, or drainage lines. Elsewhere, there are numerous scattered ridges of sand, covering considerable areas for short distances, while elsewhere detached patches crop up in a manner quite unaccountable. These ridges are common about Pakhowál in Ludhiána, and in Jagráon Tahsil and especially in the *Jangal* rising in places to a height of 20 or 30 feet, they quite shut in the view and give the country an undulating appearance. There is a very gentle slope from north-east to south-west, at right angles to the Siwáliks, and the lines of drainage follow this. Near the high bank, the rainfall is absorbed by the light soil; but further inland there are some well defined drainage lines, or *ráos*, which, after heavy rain, carry off a considerable body of water. Some of these *ráos* can be traced from one end of the District to the other, and most of them have been mapped by the Canal Department. They do considerable injury to crops. and often destroy wells in the villages on their course, but this is the whole extent of the mischief, for, even where they are partially impeded by the Grand Trunk Road, the Railway, Canal, &c., there is never anything approaching to swamp.

Drainage lines, ráos.

Minor subdivisions of the Dháia.

There are no well-recognized subdivisions of the uplands. The Bet people talk of them as *Dháia* though they sometimes refer to the *Jangal* as beyond the Dháia. The people of the eastern portion speak of the south-west of the District, including our detached villages and part of Jagráon Tahsil with the Patiála and other territories, as the *Jangal* and as a country where, although the rainfall is scanty, the produce of the unirrigated crops is very fine; where the land is new and there is plenty of it; where, instead of the constant drudgery necessary under a system of high farming, the cultivator has merely to sow his seed and do what he pleases till the harvest. On the other hand the Jat of the *Jangal* will compare his sandy fields, where only the coarsest grains can grow, with the rich *Pawádh*, with its sugar, cotton and maize where the produce of a single acre is equal to that of his entire holding. There is then, excluding the narrow sandy strip just over the Bet which is uniform along the whole length of the District, this general distinction between the *Pawádh*, or eastern tract, and the *Jangal* or south-western. The characteristics of the former, which comprises the uplands of Samrála and the part of Ludhiána Tahsil, east of the Máler Kotla road, are a generally fertile loam, rather stiff in places, with a high rainfall and ample irrigation, resulting in a highly developed agriculture, all the superior crops being grown.

CHAP. I, A.
Physical Aspects.
Minor sub-divisions of the Dháia.

West of the road the soil grows much lighter and the rainfall less, while well irrigation becomes difficult, and the higher crops disappear (first sugarcane and then cotton), till finally in our outlying villages well irrigation is unknown, the spring level being over 100 feet from the surface, and only the hardiest crops being able to subsist on the scanty moisture. There is however an intermediate tract, sometimes called the *Tihára*, which would include most of Jagráon Tahsil and the country about Pakhowál The people of Jagráon speak of the whole country south of the Ludhiána-Ferozepore road as the *Jangal* or *Rohe*, reserving the name *Dháia* for the tract between it and the high bank. This is the most correct use of the latter term, which does generally mean the land just over the *Dha*.

Geology.

There is nothing of geological interest in the District, as it is situated entirely on the alluvium.

Flora: Trees.

In such a highly cultivated District there is not much room for the spontaneous growth of trees or shrubs, but in some Bet villages small plantations of *kíkar*, &c., are reserved by the people. In the uplands, even at the last Settlement, there was little natural growth in the waste lands; and since then the cultivation has spread over them. In a very few villages in the northern part a small area still remains under *dhak* (*butea frondosa*) forests of which must at one time have covered the country. This tree requires a good deal of rain and a hard soil, so that it is not found in the south-west or in the outlying villages, but there is comparatively much more waste still unbroken and covered with the hardier *jand (prosopis spicigera*), *karír* (*capparis aphylla*), &c. Trees (generally *kíkar* and *ber*) are scattered about the fields along the village roads and near its site; and the result, except in the light-soiled villages to the south-west, is to give one the impression that the country is well-wooded. Government roads and canals have in places fine avenues of *shísham*, *siris*, &c., and there is also a considerable plantation under the Forest Department at the Phillaur road near the river. The Malaudh Sardárs have two or three *birs* near Malaudh and Sahna which cover a good deal of ground. The following are the more common trees of spontaneous growth in the District:—

Vernacular or Local Name.	Botanical Name.	REMARKS.
Kíkar	*Acacia arabica* ...	Grows in most parts of the District, but best in the east. Affects a stiff soil, and likes rain, but is very hardy. It is the zamíndár's tree *par excellence*, being most useful for all agricultural purposes and roofing.
Bér, beri ...	*Zizyphus jujuba*	Grows in most parts of the Dháia, and does well in sandy soil. Useful for its fruit, and also for its wood for roofing. Is planted in groves as a protection against sand drift.
Pípal: barota or bar.	*Ficus religiosa*; *Ficus indica*.	Grow in all parts of the Dháia, when planted; generally on the edge of the village pond; useful for shade only.
Pilkan	*Ficus venosa* ...	Takesthe place of the above in the Bet.

Vernacular or Local Name.	Botanical Name.	REMARKS.
Farwánh or farâns.	*Tamarix orientalis*	Grows very generally where planted in the Bet, mostly round the village site: also, but more rarely, in the uplands. Useful for roofing.
Shísham ...	*Dalbergia sissu* ...	Grown along roads, &c., by Government.
Phuláhi	*Accacia modesta* ...	Grown in Bet and Dháia, often in groves: wood useful for roofing, making doors, &c.
Dek or bakain ...	*Melia sempervirens*	Planted at wells in the Bet: grows very fast; wood useful for roofing. The Aráíns and Sainís usually grow the tree round their wells for shade.
Ním	*Azadirachta indica*	A good tree for shade; not very common; growing by itself both in Bet and Dháia. Wood useful.
Tút	*Morus*	As above; wood useful.
Dhák, jand and karír.	*Butea frondosa* ... *Prosopis spicigera* *Capparis aphylla*	Jangal trees (see above in text).
Kaimb	...	There are one or two groves of this tree, which is useful only for shade.

The fruit trees in the gardens about the city and elsewhere are the usual ones of the Punjab plains. Oranges and loquats seem to do best; but the District is a bad one for fruit.

Shrub, grasses, &c., in the Bet.

In newly formed land along the river is to be found the usual growth of *pilchi* (*tamarix orientalis*) here known as *jhao*. It is very useful for making baskets and for lining temporary wells. There is also an abundant growth of *dib* grass (*eragrostis cynosuroides*), of which *chitái* or matting is made; and in places of a plant called *káhi* which, when young and tender, is used for fodder, and when old hardens into a reed, used to make inferior pens. In the Budha Nála there is a weed called *jala* largely used in clarifying sugar.

In the Dháia Sarwar.

Sarkanda (*saccharum munja*) generally called *sarwar*, grows in many parts of the Dháia, and is largely planted along roads, or where there are sand hills to stop the drift, which it does more or less effectually. This grass is put to various uses and is regularly cultivated. The crop is cut in March or April, and the stubble burnt to promote fresh growth. It begins to grow immediately after the rains, and attains a height of ten feet or upwards. Large sums are realized by the sale of what is grown along the Government roads: and in places round Ludhiána it is found profitable to give up the cultivation of inferior sandy soils to grow this plant. There is also a shrub called *jhárí*, which deserves mention for its usefulness. It is a small, prickly bush, which grows in abundance in the waste of most villages and, as it is called *mallah* in the *Jangal*, it is probably the same as the wild *ber* (*zizyphus nummularia*). Twice a year the growth in the village common land is cut and the produce carefully divided according to the proprietors' shares. When dry it is beaten with sticks and tossed with a pitchfork (*salang*) and the leaves thus separated from the branches, which make an excellent hedge. The leaves are used as fodder, either alone or mixed with straw, and are said to be most strengthening. *Ak* (*calotropis procera*) grows all over the District in the fields, and is cut for firewood.

CHAP. I, A.
Physical Aspects.
Fauna.

The following complete list of the large mammals, the game birds, venomous snakes, and fishes commonly found in the District, was supplied by Mr. F. Field, who, in addition to his extensive knowledge of natural history, had a minute acquaintance with the District. During the past three years (1900-1902) rewards to the amount of Rs. 94 have been paid for the destruction of 19 wolves and 279 snakes :—

List of the larger mammals found in Ludhiána.

Name in English and Hindustáni.	Scientific Name.	Habitat, &c.
[illegible] —	*Lutra nair* ...	Found all along the Sutlej; grows to a large size. Also found occasionally along the reedy bed of the old bed of the Sutlej during the cold weather.
Wild Cat—*janglí billí.*	*Felis chaus* ...	Common about Ludhiána, and in all grass jungles throughout the District, where they do great damage to the game of all sorts.
Wolf—*bheriá, bhagiár.*	*Canis pallipes* ...	Found scattered throughout the District chiefly along the banks of the Sirhind Canal. They seem to have increased within the last few years and do considerable damage to the village goats and calves.
Jackal—*gídar* ...	*Canis aureus* ...	Common throughout the District.
Indian Fox—*lúmrí.*	*Vulpes bengalensis*	Thinly scattered throughout the District.
Desert Fox—*lúmrí.*	*Vulpes leucopus* ...	Thinly scattered throughout the District. Rarer in cultivated parts but commoner than *V. bengalensis* towards the south and south-west.
Porpoise ...	*Plantista gangetica* (?) *P. Indi.*	Found in the Sutlej; commoner in the cold season. The one found here is probably *P. Indi.*
Hare—*saha, sayar, khargosh.*	*Lepus ruficaudatus*	Found everywhere throughout the District; most plentiful to the south-west, wherever there is sufficient jungle; common all along the canal banks.
Wild Pig—*jangli súr.*	*Sus indicus* ...	Found along the banks of the Sutlej wherever there is sufficient cover; but common no [illegible]ere. Chief habitat the long grass in the jungle to right of Railway Line to Phillaur where bunds, &c., have been erected.
Nílgai—*roz* ...	*Portax pictus* ...	A few are found in south and south-west of District in jungles bordering on Native States, where, the Chiefs being Sikhs, they are more or less preserved, and are more common.
Antelope—*mirg, harn.*	*Antelope bezoar tica*	Found plentifully throughout the District; rarely visit the low lands but chiefly confine themselves to the upland, where there are large plains surrounded by cultivation. Formerly large herds were found, but now it is rare to see a herd of 100. In the south-west of the District their place is taken by the gazelle, and they are rarely or never seen. This is the more strange, as they are very common in Hissár and Sirsa Districts closely resembling the south-west of this in quality of soil, &c.
Gazelle—*harni, chi-kára.*	*Gazella Bennettii*	The ravine deer of sportsmen, common throughout the District, chiefly where sand hillocks dot the plains; very common to south-west where it entirely supplants the antelope.

List of the game birds found in Ludhiána.

No. in Jerdon	Name in English and Hindustáni.	Scientific Name.	Habit &c.
799	Large Sand Grouse—*bhattitar.*	*Pterocles arenarius*	Comes in immense flights in the first week of November, though occasional small flights may be seen in the end of October. It remains till March and re-migrates north.
801	Large Pintail Grouse—*Bhattitar.*	*P. alchata* ...	Occasionally found mixed up with *P. arenarius*, but rare. Probably more numerous to the west and south-west of the District.
802	Small Sand Grouse—*Bhattitar.*	*P. exustus* ...	The rock pigeon of some sportsmen; much rarer than *P. arenarius*; commonest to south and south-west of the District.
803	Peacock—*mor*...	*Pavo cristatus* ...	Found in very many parts of the District. It is semi-domesticated, and is generally to be found near villages. It is held sacred by some of the villagers.
818	Black Partridge—*kála títar.*	*Francolinus vulgaris*	Nowhere very common; but a few are to be found along the Sirhind Canal. Also found in all jungles to the south. Not common in the south-west, where the grey partridge has supplanted it.
822	Grey Partridge—*títar.*	*Ortygornis ponticeriana.*	Found sparingly everywhere where there is jungle; near a village they seem specially to congregate; but wherever there is grass or bush they are to be found. To the south-west they are most plentiful.
829	Quail—*bater* ...	*Coturnix communis*	Plentiful from April till the *rabi* is cut. They come again in September and stay till the *kharif* is cut; some few birds stay in long grass, &c., all the cold weather, and a very few stay and breed here in June and July.
830	Rain Quail—*bater.*	*Coturnix coromondelica.*	A rainy season visitor. It comes in in July when its peculiar "wheet-wheet" is to be heard in cloudy weather all day. It leaves before *C. communis* arrives as a rule, though occasionally both birds may be flushed in one field.
834	Large Button-Quail—*bater.*	*Turnix dussumierii*	This bird is occasionally flushed when quail-shooting in September and October, but is by no means plentiful and stays a very short time.
835	Button Quail—*chota bater.*	*Turnix sykesii* ...	Found occasionally in the spring and autumn crops. It has a very strong scent, and dogs invariably put them up, though they may fail to put up a common quail.
836	Great Bustard—*túghdár.*	*Eupodotis Edwardsii.*	During certain times of the year visits the south-west of the District, probably during the hot weather and rains.
837	Obara—*khur mohr tílur.*	*Houbara Mucqueenii*	A very few of this species visit this District during the cold weather. Occasionally a flock takes up its residence near an open bush jungle, and stays for a month or so; but this is rare.
839	Lesser Florican	*Sypheotides auritus*	Has once this bird been seen in this District. It was in September and was emigrating probably. It was in the "People's Park" at Ludhiána close to the civil station.
851	Lapwing—*titiri*	*Vanellus cristatus*	Found all along the Sutlej, but chiefly along the banks of the Budha Nála, where it is plentiful during the cold weather.
853	White-tailed Lapwing.	*Chettusia leucura*	Common along the Budha Nála, every cold weather, notwithstanding Jerdon's remark that it is a rare bird in India.
863	Sarus Crane—*taras.*	*Grus antigone* ...	Occasionally found in pairs, chiefly to the south.

CHAP. I, A.
Physical Aspects.
Fauna.

List of the game birds found in Ludhiána—contd.

No. in Jerdon	Name in English and Hindustáni.	Scientific Name.	Habitat, &c.
865	Koolan—*kúnj*	*Grus cinerea* ...	A cold weather visitant in large numbers. It comes in in October and leaves in the end of March; spends the day near or on the river Sutlej, and flies inland to feed on the green crops or sown grain morning and evening.
866	Demoiselle Crane —*kharkhair.*	*Anthropoides virgo*	On its passage to and from lower India, this handsome bird occasionally stops to rest and feed on the Sutlej. It is only in October and the latter half of March that it is seen, and then only for a day at a time. It never makes a prolonged stay here, being more of a *jhil*-loving bird than its congener *G. communis*
871	Snipe—*cháha* ...	*Gallinago scolopacinus.*	The full snipe of sportsmen. Common all along the Budha Nála and rushy places throughout the District. The first flight arrive about the middle of September; no more come till October, when they straggle in; nowhere to be found in considerable numbers till January. They stay till end of March, and the last flights pass through in the end of April.
872	Jack Snipe—*cháha.*	*G. gallinula* ...	Arrive in the end of September and stay till April.
873	Painted Snipe—*cháha.*	*Rhynchœa bengalensis.*	Found throughout the District, commonest in the early cold weather. Affects all the swamps and pools. Breeds in the District where it has been seen all the year round.
875	Godwit—*cháha*...	*Limosa œgocephala*	Found in the cold weather and beginning of the hot near the Sutlej on all large pools and swamps.
877	Curlew— *do.*	*Numenius arquata*	Frequents the Budha Nála, and the land lying near the Sutlej, where it feeds in the fields, &c. A cold weather visitant.
944	Flamingo ...	*Phœnicoptorus roseus.*	Stragglers no doubt visit this District during the late rains and early cold weather. Shot once at Miáni.
949	Barred-headed Goose—*mag.*	*Anser indicus* ...	Visits the District in considerable numbers in the cold weather; stays from October to March. Spends the day by the rivers, visiting the gram fields inland during the morning and the fields near the rivers in the afternoon.
950	Black-backed Goose—*nagta.*	*Sarkidiornis melanonotus.*	May be found occasionally towards, Miáni, Máchhiwára, &c., in the rains.
945	Grey Goose—*mag*	*Anser cinereus* ...	Visits the District during the cold weather. Habits identical with A. *indicus.* Some few flocks live in the interior of the District for two or three months.
951	White-bodied Goose-teal.	*Nettapus coromandelianus.*	Found occasionally in the beginning of the cold weather and occasionally in the hot, along the Sutlej and Budha Nála.
952	Whistling Teal *murghábi.*	*Dendrocygna awsuree.*	Found during the hot weather all along the Sutlej.
954	Ruddy Shieldrake —*surkháb, kawnk.*	*Casarca rutila* ...	Visits the Budha Nála occasionally in the cold weather, and in considerable numbers the Sutlej. Feeds often on gram inland in large flocks.
957	Shoveller—*murghábi.*	*Spatula clypeata*...	Visits the District in the cold weather, and may be found on all village tanks and *jhíls* till April.
958	Mallard—*murghábi.*	*Anas boschas* ...	Cold weather bird, found in huge flights on the Sutlej and also on Budha Nála. Arrives in November.

List of the game birds found in Ludhiána—concld.

No. in Jerdon	Name in English and Hindustáni.	Scientific Name.	Habitat, &c.
959	Spotted-billed Duck—*murghábi.*	*Anas pæcilorhyncha*	The "Wax-bill" of some, found occasionally on the Sutlej and Budha Nála during the hot weather as well as the cold.
961	Gadwall— *do.*	*Chaulelasmus streperus.*	Comes in October, and is very common in all jhíls as well as on the Sutlej and Budha Nála. Comes at night in huge flights to feed on the weeds in the nála.
962	Pintail-- *do.*	*Dafila acuta* ...	A few flights are seen every year. Commonest in the beginning of the year in the ponds in the interior of the District.
963	Widgeon— *do.*	*Mareca penelope* ...	Some few are seen every cold weather, but never in any numbers.
964	Teal— *do.*	*Querquedula crecca*	One of the commonest cold weather birds Found in all pools and on Sutlej and the Budha Nála; comes in end of September and goes in April.
965	Garganey—*murghábi.*	*Q. circia* ...	Some few visit the District in September and October, but disappear again till March. Nowhere very common.
967	Red-crested Pochard—*murghábi.*	*Brauta rufina* ...	Visits the Sutlej and Budha Nála in large numbers in February and March. It has also been shot in July in the District.
969	White Eye—*murghábi.*	*Aythya nyroca* ...	Visits the Sutlej and Budha Nála in the cold weather.
971	Golden Eye—*murghábi.*	*Fuligula cristata*	It is the tamest and commonest duck found occasionally a few flights visit the District in the winter, principally in March.
	White-headed Duck--*murghábi.*	*Erismatura leucocephala.*	One specimen of this very rare bird was shot in the District.
972	Merganser— *do.*	*Mergus castor* ...	Found on the Sutlej occasionally though rarely during the cold weather.
973	Smew ...	*Mergellus albellus*	Found occasionally in the cold weather.
1004	Grey Pelican—*painh.*	*Pelecanus Philippensis.*	Found in the Budha Nála and Sutlej during the hot weather and rains.

List of the Thanatophidia or venomous snakes in Ludhiána.

Name in English and Hindustáni.	Scientific Name.	Habitat, &c.
Cobra—*kálá sámp*	*Naja tripudians* ...	The most deadly, as well as the most common, of all the poisonous snakes in the more cultivated parts of the District, and wherever there is cultivation, gardens, &c.; also in all the jungles. It grows to a large size, having been killed 6 feet long. In the open sandy parts of the District it is supplanted by *E. carinata.*
Ringed Snake—*karait.*	*Bungarus cœruleus*	Inhabits the same country as the cobra, except that it is not found in jungles. Commonest about gardens where there are old walls, &c. Hardly less deadly than the cobra, and as it has a habit of curling up by doors and under chicks, &c., and not moving at the approach of man, it is a most dangerous snake.
Russell's Viper	*Daboia Russellii* ...	Rare in this District, but found occasionally, chiefly towards Máchhiwára and Bahlolpur to the north-east of this District.
Chain Adder ...	*Echis carinata* ...	Very common throughout the District in the drier and more sandy parts. A small sluggish snake, and fortunately less deadly than any of the three

CHAP. I, A.
Physical Aspects.
Fauna.

List of the Thanatophidia or venomous snakes in Ludhiána—concld.

Name in English and Hindustáni.	Scientific Name.	Habitat, &c.
Chain Adder ...	*Echis carinata* ...	foregoing species; otherwise there would be more deaths from snake-bite than there are. On being met at night it never attempts to get out of the way, but curls up in an attitude of defence and gives out a hissing noise by rubbing its carinated scales together. When a report of the poisonous snakes of this District was being prepared in 1871 (?) a very great number of these snakes were brought in. Their captors said they found them under any old logs about the fields or villages on the higher lands. This is the celebrated "Kupper" of Sindh probably where it appears to be more deadly than in the Punjab.

List of the commoner fishes found in Ludhiána.

Mahásír ...	Found throughout the year in the Sutlej and Budha Nála. In the Sutlej they run to a large size, some specimens weighing about 50lbs. and over. They spawn in the rainy season.
Rohú ...	Found in the Sutlej and the Budha Nála; is even commoner than the *mahásír*. It spawns in July and August. It runs to about 20 or 30lbs.; larger specimens are rarely found.
Sewal ...	When in good condition one of the best fish for the table found here. There are several varieties. Its appearance changes greatly with the season and the water it is found in. It spawns late in the year, and the young may be seen in countless numbers in pools at that time.
Bachwa ...	During the rains, after the first heavy floods have swept down the Budha Nála, this fish begins to run up. It is rarely in good condition owing to the thickness of the water, but is notwithstanding the very best eating fish to be had here. In the Sutlej it is found in great quantities near any places where young fish congregate. It probably migrates for part of the year and also to spawn.
Tingra ...	Small specimens of this fish are found in any numbers in the Budha Nála and Sutlej. It rarely runs large, yet specimens of 5lbs. or so are sometimes caught by the fishermen.
Eel or *Bám*	Common in the Nála and Sutlej. In the latter it is occasionally found very large, 8 or 9 lbs. in weight, but in the Budha Nála specimens of 1 lb. even are rare. It is found all the year round and does not appear to migrate.
Mohú ...	This fish is found after the rains. It runs up after the heavy floods in the rains, and grows to a large size. Very commonly found 5 lbs. in weight. It has a curious habit of rising constantly to the surface of the water and turning over, showing its very broad silvery side.
Chapta ...	Very like the *mohú* and closely allied to it in habit. It is commoner and is found all the year round. It has the habit of turning over on the surface. It is a small fish, rarely weighing ½lb. in weight.
Mallí ...	A common and very voracious fish, the shark of this part of the world. It runs to a large size in the Sutlej, and fair sized fish come up the Budha Nála in the rains. It breeds in July and August like the *rohú*.
Singhi ...	A not very common and very repulsive-looking fish, very dark purple or red. Said to be a good table fish; but its looks keep people from trying it.
Chilwa ...	Common in both the Sutlej and the Budha Nála, where in autumn and spring it may be seen rising at gnats in hundreds like trout. By all accounts, owing to excessive netting with small meshed nets, this fish has been considerably thinned out near towns.
Rewa ...	Something like a small *mahásír*, but with scales like a grayling in parallel rows along the body. Has a curious habit of swimming in companies about on the surface with its mouth out of the water during the late autumn and spring.

CHAP. I, A.

Physical Aspects.

Sport: small game.

In the cold weather wild fowl are plentiful along the river and the Budha Nála, but they are much disturbed in the neighbourhood of Ludhiána by native *shikárís*. Very fair snipe-shooting may be had under Máchhiwára. Flocks of *kúlan* and geese are also to be met with in the fields. In the uplands there are a good many hares, though the Jat of the present day is fond of coursing: and partridges, black and grey, are to be found in the sugarcane fields or where there is a small patch of jungle. Quails are abundant in their seasons; and sand grouse of several sorts are to be found in numbers in the cold weather amongst the *moth*, &c., stubble in sandy soils, as well as flocks of wild pigeon. Peacocks are common in the eastern part of the District, and live in the sugarcane fields. The ordinary Jats have no great objection to their being shot; but the birds are really half tame, and only eatable when young. Owing to the absence of cover it is not generally an easy matter to make a large bag, except, perhaps, amongst the quail or snipe; and one brings home from a day's shooting a most miscellaneous collection of game picked up in the fields. In some of the detached villages, which have a growth of jungle left, it is possible to get a good bag of grey partridge and hare: and there are some *bírs* or reserves in Patiála territory which are strictly preserved and abound with game. Pigs are very common along the river just under Ludhiána They find shelter mostly in the forest plantation on the Phillaur road and in a large piece of land beside the river, covered with high grass, which has been taken up by the Railway to protect the bridge. The number of pigs appears to have increased within recent years; but it is only here that they are found. They come out at night in swarms and ravage the fields to great distances about, devoting most of their attention to sugarcane, maize, &c., of which they are fond; but also rooting up the young spring crops from sheer vice. They are fondest of the *pona* or thick sugarcane; and in Rajowál and other villages, where it is grown extensively, the people are out all night along the boundaries of their field with fires lighted and keeping up a continual noise. The pigs, however, do not appear to mind this, and get into the field. The amount of injury done by these pests is very large; but no systematic attempt has been made to kill them down. It is not possible to ride after them owing to the broken nature of the country and the difficulty of getting them out. An occasional sportsman shoots a few, but the loss is not felt. The antelope and ravine deer are common in most places; and one has to go but a very few miles from Ludhiána to get a good black-buck. The deer are very tame; but shooting them is attended with considerable risk, owing to the perfectly flat nature of the country, and the number of people that are always working in the fields. Nilgai are found in some of the waste lands belonging to our detached villages.

Pig.

Deer.

CLIMATE.

Temperature. *Table 2 of Part B.*

The climate in general is that of the Punjab plains. The Siwáliks are too far off to have much effect, and the Ferozepore District acts

CHAP. I. B.
History.
Temperature.

as a buffer between Ludhiána and the desert of Bikánir; consequently the hot winds and dust-storms that ravage Ferozepore in the hot weather are not felt with the same severity in this District. Within the District there are considerable variations of climate. The Dháia is dry and healthy, though it has suffered in both respects from the opening of the canal. The Bet and the uplands, immediately overhanging the Budha Nála, are damp and malarious. The town of Ludhiána is very badly situated in this respect, but Máchhiwára, Kum and Bahlolpur are even worse.

RAINFALL.

Rainfall.

Tables 3 to 5 of Part B.

The District enjoys a comparatively good rainfall. The yearly average for the decade ending 1900-01 is shown in the margin for the three tahsil towns of the District. It will be seen that Samrála gets a slight advantage from its comparative proximity to the Sawáliks, while the shortage in Jagráon suggests the neighbourhood of Ferozepore.

	Inches.
Samrála ...	... 29·38
Ludhiána ...	.. 26·57
Jagráon ...	... 24·37

The greatest variability between the rainfall at these different stations appears in the year 1892-93, when Samrála registered 57·12 inches and Jagráon 28·70; Ludhiána striking a mean between the two at 43·49. This relation, however, is not always preserved. In 1898-99, Samrála got only 14·63 inches, while Ludhiána and Jagráon got 20·66 and 20·64 respectively. The largest rainfall in the decade was 57·12 inches at Samrála in 1892-93 and the smallest 12·07 at Jagráon in 1896-97.

The Jangal villages stand quite by themselves in the matter of rainfall. Rain is generally scanty, and there are villages which consider themselves lucky if they get 15 inches in the year.

Section B.—History.

Physical changes.

There are no signs to indicate that the Ludhiána District has been the scene of any great physical change. The Sutlej appears to have been always confined to its present valley, though within it the river has shifted about a good deal. The last change took place about towards the end of the eighteenth century, when it abandoned its course, now the Budha Nála, under the ridge that separates the lowlands from the Dháia bringing to this side the whole of the present Bet then for the most part uninhabited. The towns of Bahlolpur, Máchhiwára and Ludhiána, and the old villages, such as Kum and Bhundri, which lie on the top of the ridge, were built on its bank. There is nothing to show that the uplands were ever traversed by streams unless, indeed, the sand belts of Samrála Tahsil mark the course of former hill torrents. There are no local traditions pointing to this, but this source of information would not go back more than 300 or 400 years. It is clear that such changes as have taken place were the work of man and not of nature.

CHAP. I, B.
History.
Importance of the district in history.

Few districts possess greater historical interest than Ludhiána, which, lying as it does on the high road from Central Asia, must have been crossed by each successive wave of conquest or immigration; and in historical times we find that some of the most decisive conflicts for empire took place in this neighbourhood. The Punjab was always an outlying province of Hindustán, and its loss was not fatal; but, once across the Sutlej, an invader had nothing between him and Delhi. Perhaps the greatest interest attaches to the country as the scene of the struggles between rising Sikhism and the Muhammadans; and when at the beginning of the last century the English power extended northwards the Sutlej was fixed as the limit of its territories; and Ludhiána was for nearly half a century our frontier garrison at the point where we were in contact with the only remaining independent power, that of the Punjab.

Early history: Hindu period.

Little can be said of the Hindu period, for there is an absolute dearth of materials on which to found anything resembling history. Mr. Tolbort writes: "I presume that it formed a portion of the kingdom of Magadha; Sunet, Tihára, Máchhiwára and Bahlolpur date from the Hindu period. It is said that Máchhiwárá is mentioned in the Mahábhárata, and that Bahlolpur formerly bore the name of Muhabatpura." It is true that, as he points out elsewhere, there are many Máchhiwáras, but there is some reason to believe that a large city existed in the neighbourhood of the present town. The ground is covered with mounds, whose antiquity is shown by the large bricks found in them, and there are five wells, also built of large bricks, to the west of the town which seem to show that the city in ancient times lay in that direction. The people say that one well formerly bore an inscription that the digger had sunk 360 wells in Máchhiwára. It is possible that antiquarian research may give us some information, but at present it has been applied only to the mound at Sunet three or four miles west of Ludhiána, which is of considerable extent, and clearly marks the site of an important city. It was visited by General Cunningham in 1878-79, and the result of his enquiries will be found at pages 65—67, Vol. XIV of the Archæological Survey. General Cunningham examined bricks, one or two sculptures and a number of coins; concerning the last he wrote: "From these coins the following facts may be deduced with almost absolute certainty:—

Sunet.

"(1). The town of Sunet was in existence before the Christian era as evidenced by the coins of Uttamadatta and Amoghabhuti. It continued to flourish during the whole period of the dominion of the Indo-Scythians, and of their successors who used Sassanian types down to the time of Samonta Dewa, the Brahman King of Kábul and the Punjab."

"(2). From the total absence of coins of the Tomara Rajas of Delhi as well of all the different Muhammadan dynastis, it would appear that Sunet must have

CHAP. I, B.

History.

Sunet.

been destroyed during one of the invasions of Mahmud of Ghazni, and afterwards remained unoccupied for many centuries."

There are various legends about the destruction of Sunet mentioned by Cunningham, all of which represent the last Rája as living on human flesh and as owing his downfall to not having spared the only child of a Brahman widow. Mr. Tolbort appears to think that the town was overthrown by an earthquake. However this may be, it is likely that Sunet was the head-quarters of some Hindu kingdom, small or great; but more we cannot tell.

Tihára.

Current tradition identifies Tihára in the north-west corner of Jagráon Tahsil with the city of Varát mentioned in the Mahábhárat, and this is said to have been its name up to Muhammadan times. It was a place of some importance under the Mughals; but the old town has long since disappeared in the river which ran under it, and the present site is at some distance from it. Tihára may have been the capital of a small Hindu kingdom. There was also a city called Mohabbatpur close to Bahlolpur; but of this too all traces have disappeared. It is quite possible that in Hindu times the country was to some extent inhabited by a nomad people, but that there were a good many towns and villages along the banks of the river; but they and the races that dwelt in them have long since disappeared, perhaps in the early Muhammadan invasions when the country was overrun by plundering Biluchís and other tribes.

General Cunningham does not mention the small square copper coins containing on one side the Buddhist wheel and on the other names of Rájas in old Sanskrit letters, which are still found. On the mound, besides coins, impressions of seals in burnt clay, seals in stone and copper, beads, carved bricks, large bricks, dice, glazed pottery and many other antiquities are still found also: as are impressions of coins of the Yaudheyas in clay.

The following is an account taken from a Hindi paper by the late Sirdár Sir Atr Singh, K.C.I.E., Chief of Bhadaur, of M. Arura, a village which lies a little north of Bhadaur and 8 *cos* south of Jagráon.

Arura (Proceedings of the Asiatic Society of Bengal, 1871).

"In old times, Arura was inhabited by Rájpúts of the Pramura clan. Many of the inhabitants were killed when the Muhammadans invaded the District, and many emigrated. Among the fugitives were also several families of Bráhmans, and hence it is that certain clans, as, for example, the Káligotra Bráhmans of the hills of Chintapuri, look upon Arura as their original domicile."

The Sirdár then mentions several legends of Rai Fírúz, under whom Arura flourished. His tomb still exists, and in one of its inscriptions the year 1532 Samvat is legible. The old tank called Ràniyáná near Arura is frequented by numerous pilgrims. People say that the ancient names of the place is Ahichatta, and that its ruler, Rájá Buddhamati, composed a work in Prakrit, entitled Dharma

CHAP. I, B.

History.

Katha, which is still used by the Puja tribe in the District. In the 15th Chapter of this book, it is mentioned that a former prince of the city of Ahichatta, named Kanaka Ketu, reigned at the time of Maháviira Swámi, the twenty-fourth incarnation of Buddha. Under him the town was so large that Bhadar and the adjoining village were the suburbs of Arura.

Early Ráj-pút settlers.

The ancestors of the present agricultural population certainly immigrated within the last 700 or 800 years. The Rájpúts were the first settlers, and came from the south. They say that in the reign of Muhammad of Ghor (A. D. 1157) their ancestors found the country all waste and obtained from the Emperor the grant of a large tract along the Sutlej, in which they settled. Their villages lie almost all along the ridge over the old course of the river, or in the valley beneath. They were followed by the Jats who mostly came from the same direction and began to settle in the uplands 400 or 500 years ago, first in the eastern parts, and much later in the west, Tahsil Jagráon, &c.

History under the Pathán dynasties: founding of the town of Ludhiána and first settled Government of the country under the Lodís.

There is no information about the District during the earlier Muhammadan invasions; and it is not till the time of the Lodís that its name is mentioned. The local history of Bute Shah, generally very reliable, gives the following account of the first attempt to establish a settled Government:—

"In the reign of Sikandar, son of Bahlol Lodi, the people about Ludhiána were oppressed by the plundering Biluchis, and applied to the Emperor for assistance. Sikandar, in answer to their prayer, sent two of his Lodi chiefs, by name Yúsaf Khán and Nihang Khán, with an army. These chiefs fixed on the present site of the Ludhiána city, which was then a village called Mir Hota, as their head-quarters and restored order to the country about. Yúsaf crossed the Sutlej to check the Khokhars, who were then plundering the Jullundur Doáb, and settled at Sultánpur. Nihang Khán remained at Mir Hota as the Emperor's lieutenant; and called the place Ludhiána. He was succeeded by his son and grandson. The latter, Jalál Khán, built the fort of Ludhiána out of the bricks found at Sunet. His two sons partitioned the country round Ludhiána, which was then lying waste, amongst the people of the town, and distributed them in villages. In the time of Jalál Khán's grandsons, Alu Khán and Khizr Khán, the Lodi dynasty was overthrown by Bábar; and the Lodís of Ludhiána sunk to the position of ordinary subjects of the Mughal empire. They are said to have lived close to the fort for many generations, but all traces of them have now disappeared, and even the tombs of Nihang and his immediate descendants have been lost sight of, although they are said to have been standing some years ago."

Without vouching for the accuracy of this account it may be said that the founding of the town of Ludhiána, and the first systematic attempt to people the country about it, date from the rise of the Lodi family which subsequently held the throne of Delhi from 1450 to 1525. The earliest mention of the town appears to occur under the year 1420 when Túghán Raís, who was in rebellion against Khizr Khán and had overrun the country as far as Mansúrpur and Pail, retreated across the Sutlej by the town of Ludhiána and

CHAP. I, B.
History.
A. D. 1420.

confronted the royal army sent against him from the other side of the river. In the reign of Mubárak Shah Jasrath, the Khokhar plundered the country from Ludhiána to Rupar, and the former town appears to have been held by the Khokhar chief, for he kept Zírak Khán prisoner there and made it the base of his attack on Sirhind, retreating to it when compelled to abandon the siege of that fortress. The imperial forces then advanced to Ludhiána, which Jasrath abandoned, but they were unable to pursue him across the Sutlej as it was the rainy season. Under Bahlol Lodi's beneficent administration the prosperity of the country reached its summit (*Marshman*), and the reign of his successor, Sikandar, was a most prosperous one. In 1500 we read of a Muhammadan governor of Máchhiwára being commissioned by that ruler to apprehend the recalcitrant governor of Delhi.

The Mughal Empire.

The progress of the country does not appear to have been impeded by the change of rulers, the Mughals established a strong government at Sirhind, to which Ludhiána and the country about it were attached as a *mahal*. Sirhind, with the rest of the empire, passed into the hands of the Súr dynasty; and it was at the town of Máchhiwára, 25 miles east of Ludhiána, that Humáyun fought the battle with Sikandar Sur, which restored him to the throne of Delhi in 1555. It is to the reign of Akbar (1556—1605) that most of the people in the eastern part of the District ascribe the advent of their ancestors and the founding of their villages, and it is most probable that before the commencement of the 16th century there were only a few villages scattered over the District (mostly Rájpút), and that the great immigration of Jats, who occupy the whole of the uplands, began under the settled rule of the Lodís and continued during the whole of the 16th century. The Ain-i-Akbari enumerates the following *mahals* (or *parganas* as we should call them): Tihára, Hatur, Bhundri, Ludhiána, Máchhiwára and also Pael and Duráha. The first three are still considerable villages in Jagráon Tahsil. The town of Pael and the village of Duráha are in Patiála territory between Ludhiána and Samrála *tahsil;* and it is clear that these seven *mahals*, which were in the Sirhind division or *Sarkar* of the Delhi Province or *Subah* covered most of the present District and the adjoining parts of Patiála territory.

Rise of the Sikhs and decline of the Empire.

During the century-and-a-half which followed the death of Akbar, historical interest centres for this part of the country in the rise of Sikhism as a power, and the constant struggles between, first, the followers of the Gurus, and latterly the Phulkián and other Sikh chiefs on the one hand, and the local representatives of the empire on the other. The life of Nának was contemporary with the Lodi dynasty: and Hargovind, the sixth Guru, was engaged during the latter years of Jahángír's reign in petty warfare with the imperial troops. Aurangzeb ascended the throne in 1657; and the ninth Guru, Tegh Báhadur, was murdered by his orders at Delhi in 1675. Govind Singh, the last of the Gurus, succeeded

CHAP. I, B.
History.
Rise of the Sikhs and decline of the Empire.

Tegh Bahádur; and under him commenced the long struggle between the Cis-Sutlej Sikhs and the Muhammadan Governors of Sirhind, which was only a part of Aurangzeb's persecution of the rising sect. This district, with the adjoining country to the south, was the scene of many of the great Guru's wanderings and encounters with his enemies; and in Sirhind his wife and children were murdered about the year 1700—a deed that has made the place for ever accursed to all true Sikhs. It is probably to the bigotry and persecution of Aurangzeb (whose memory the Sikhs to this day hold in great detestation, invariably referring to him as "Ranga") that we should ascribe the union of the followers of the Gurus into a militant power. Aurangzeb died in 1707 and Govind Singh in 1708. The latter was succeeded by Bánda, under whom the imperial troops were defeated and Sirhind sacked in 1705. But although they twice overran the country between the Sutlej and the Jumna, they were finally dispersed, and Bánda taken and executed in 1716. For a generation after this the Sikhs were much depressed and persecuted; and it was only when all energy had departed from the empire that they were able to raise their heads again. From this time the struggle was continued by the Phulkián and other chiefs, who saw their way to establishing kingdoms for themselves on the ruins of the empire, now tottering to its fall. Ala Singh, the founder of the Patiála house, succeeded his father Ráma in 1714; he was a contemporary of Rai Kalha (II) of Ráikot, under whom the Rais of Ráikot, who had hitherto held the lease of a considerable tract from the emperors (see history of the family in section C of this Chapter), first asserted their independence. The District as now constituted cannot be said to have a separate history during these times and it would be impossible to detail here the conflicts between the various claimants for its territory. The principal were the Rai, Rája Ala Singh of Patiála, and the representative of the Delhi Empire at Sirhind. In 1741 we find a combination of the two last against Rai Kalha, who had been endeavouring to throw off the Imperial authority. Rai Kalha was defeated and chased out of the country, but he soon recovered the territory which he had hitherto held as a fief of Delhi. The alliance between the Sikhs and the imperial troops lasted for a very short time, and the Rai was then able to extend his territories unopposed, there being plenty of room for him to do so at the expense of the empire without danger to the schemes of the Sikh chiefs. In a foot-note to page 60 of the "Punjab Rájás" is given a short sketch of the history of the Rais, and it is said that they got possession of the town of Ludhiána in 1620 A. D.; but this is evidently a mistake. The town and fort of Ludhiána did not fall into the hands of the Rais till about 1760.

Duráni invasions to the taking of Sirhind by the Sikhs (1738-1763).

The invading army of Nádir Sháh Duráni crossed the Sutlej at Ludhiána, then on its banks, and marched through the District along the Imperial highway between Lahore and Delhi, the course of the present Grand Trunk Road and Railway. Nádir Sháh is said

CHAP. I, B.
History.

to have ordered a general massacre of the inhabitants of Ludhiána for some petty fault; but it is doubtful if he did so.

Duráni invasions to the taking of Sirhind by the Sikhs (1738-1763).

Ahmad Sháh entered India on his first expedition in 1747. On reaching the Sutlej at Ludhiána, he found his passage opposed by the son of the emperor and the Wazír Kamardín, with a large army from Sirhind. Ahmad Sháh, adopting the usual Duráni tactics, made a long night march up the right bank of the river; and crossing about Máchhiwára or Bahlolpur, endeavoured to throw himself between the forces of the Wazír and Sirhind. The two armies met on a sandy plain between the villages of Mánupur, Barwáli, &c., a few miles to the north-east of Khanna, in Samrála Tahsil. The Imperial troops took up a strong position from which the Duráni could not dislodge them. Desultory fighting went on for many days, and in one of the skirmishes Kamardín was killed. His son, the distinguished Mír Mannu, was equal to the occasion and, seating the body of his father on an elephant, paraded it before the troops. Ahmad Sháh had finally to retire discomfited. It is said by the villagers that the loss on both sides was very heavy and that for a long time the stench of the dead bodies made cultivation impossible. To the subsequent invasions of Ahmad Sháh no resistance was attempted by the Imperial troops in Sirhind, but his armies were constantly harassed by the Phulkián chiefs and the Rais. It was about 1760 that the Rais were permitted by him to take possession of the town and fort of Ludhiána and to extend their power over the country. In 1761 Zain Khán was appointed Governor of Sirhind by Ahmad Sháh. In the following year there was a formidable combination against Zain Khán of all the Phulkián and other Sikh Cis-Sutlej chiefs, assisted by numerous bands of Sikhs from the Mánjha or Punjab Proper. Ahmad Sháh heard of this at Lahore; and, marching to the Sutlej in two days, he crossed at Ludhiána and fell upon the allies a short distance to the south of it just as they were attacking Zain Khán. The Sikh army was cut to pieces and the fugitives pursued to a great distance. This disaster (called the *ghalu ghára*, or great massacre) does not appear to have had much effect on the Sikhs, for in the following year, 1763, they were able to bring together a large army composed of the Cis-Sutlej Sikhs, aided by bodies of their co-religionists from across the Sutlej. Zain Khán was defeated and slain, and the Sikhs, following their victory, took possession of Sirhind, which they levelled with the ground.

Partition of the country after the fall of Sirhind.

With the fall of Sirhind vanished the last vestige of Imperial control over that portion of the empire of which it was the head-quarters; and when in the next year Ahmad Sháh passed through the country he recognized this by appointing Rája Ala Singh of Patiála to be Governor. In 1767 Ahmad Sháh reached Ludhiána on his last expedition into India but got no further. He confirmed Amar Singh, the grandson of Ala Singh, in the government of Sirhind, and gave him the title of Mahárája; and from this time the Sikhs and other chiefs who had taken possession of the country

CHAP. I, B.
History.

Partition of the country after the fall of Sirhind.

were left alone to settle their own affairs. The Imperial authority had to the last been maintained over most of the country lying between Ludhiána and Umballa, and round the head-quarters of the *Sarkár*. On the fall of Sirhind the whole of this rich tract fell into the hands of the Phulkiáns and their Mánjha allies. The present Samrála Tahsil and a small portion of the east of Ludhiána were partitioned between the latter, each chief and confederacy seizing as many villages as they could. The eastern boundary of the territory of the Rais had in the few years preceding the capture of Sirhind been quietly advanced eastwards from Badowál, Dhándra, &c., so as to include the town of Ludhiána and the whole of the villages in the uplands south and east of it to within a few miles of Máchhiwára. Their northern boundary was the river Sutlej. The lowlands opposite them were held by the Kákar Sirdárs and Diwán Mohkam Chand to the south of Ludhiána and to the north by Tára Singh Ghaiba (also a Kákar). There was then no Bét on this side. The Malaudh Sirdárs had already established themselves in the south of Ludhiána Tahsil (the *Jangal* villages and the country about Malaudh); and Sudha Singh, Gil, an adventurer from Loháru in the Ferozepore District, secured a few villages about Sánahwál. With these two exceptions the whole of the present uplands of Jagráon and Ludhiána Tahsils with a considerable part of the Moga and Zira Tahsils of Ferozepore, in all 1,360 villages, it is said, belonged to the Rais. Samrála Tahsil was divided as follows: Sudha Singh, Bájwa, seized Máchhiwára and the eastern portions of the Utálan *pargana*, and the western half fell into the hands of the Ladhran Sirdárs. In *pargana* Khanna some villages were held by a servant of Tára Singh Ghaiba who subsequently set up for himself at Khanna; and the rest was divided between the Khéri, Bhari, Ajner, and Jabu Mazra Sirdárs and members of the Sontiwála and Nishánwála confederacies. Jassa Singh, Ahluwália, of Kapurthala got 30 or 40 villages round Isru, Under the Rais the Garewáls of Raipur and Gujarwál had some sort of local authority in the surrounding villages; but they were only "málguzárs" or contractors for the revenue.

Change in the river's course.

Twelve years after the fall of Sirhind, about 1785 A.D. occurred a great change in the course of the Sutlej, the whole of what is now the Bét, a tract over 50 miles in length and 5 or 6 in width coming to this side. It was at the time in the possession of the Kákars, Tára Singh Ghaiba, whose head-quarters were at Ráhon, having the upper and his brethren the lower portion,—now the Núrpur *pargana*; and these chiefs retained their hold except where Sudha Singh of Sánahwál seized some uninhabited portions in front of his upland villages, about Matewárah. There was then very little cultivation in the tract, the villages being few and far between. Most of the present ones owe their foundation to these chiefs, and date from within the last 120 years.

The Rais had a number of forts at different places and each Sikh chief erected one or two according to the size of his possessions.

CHAP. I. B.
History.

This partition of the country appears to have been recognized by the various parties to it; and during the last forty years of the 18th century they do not seem to have attempted any encroachment on each other's territories but to have gone on very amicably.

State of the country at this period.

The condition of the country during that period was one of considerable prosperity. The rule of the Rais is still spoken of as very mild, and it is said that they fixed only one-fourth of the produce as their due. The peasantry were probably very glad to see the long struggle finally ended; and the petty chiefs appear to have done their best to encourage cultivation. They took a full revenue in kind and exercised a good deal of petty tyranny; but one does not hear much of exactions in the early years of their rule, and they had scarcely time to engage in petty quarrels amongst themselves before the arrival of Ranjít Singh. One hears of but few instances of proprietary bodies being driven to desert their land by the oppression of the rulers, and the condition of the people was very much better at this time than it was subsequently under the followers of Ranjít Singh.

Attacks of Sikhs from across the Sutlej: the Bedís.

The peace which the country enjoyed after the fall of Sirhind was interrupted by Bedi Sáhib Singh of Una. This fanatic crossed the Sutlej in 1794 A. D, with an army of Sikhs from the Jullundur Doáb, proclaiming a religious war against the Patháns of Máler Kotla. From this he was turned aside by the Patiála chief, but in 1798 again crossed and made a similar attack on the Rais of Raikot. Rai Aliás was a minor; but his agent Roshan, Gújar, made a good stand against the Sikhs at Jodh, ten miles south-west of Ludhiána. He was however killed and the Rai's army dispersed; but the Phulkián chiefs, who had always been on good terms with their Muhammadan neighbours of Kotla and Raikot, and who had no intention of allowing the Bedi to establish himself in their midst, now came to the assistance of the Rai, and drove the invaders out of most of the villages seized by them. The Bedi thereon invested the fort of Ludhiána; and the Rai called in the adventurer George Thomas from Hánsi. On Thomas' approach the Bedi retired across the river, and ceased to trouble the country.

Mahárája RanjítSingh's invasions and annexations: extinction of the power of the Rais division of the country.

The capture of Delhi in 1803 brought the English into direct contact with the Cis-Sutlej chiefs from the south, and about the same time Ranjít Singh, having extended his dominions to the north bank of the Sutlej, began to think of conquest beyond it. The disputes between the States of Patiála, Nábha and Jínd afforded him the desired opportunity, and in July 1806 he crossed the Sutlej. The last of the Rais (Aliás) had been killed while hunting in 1802; and the family was represented by his widow, Bhág Bhari, and his mother, Nur-ul-Nisa. No opposition was offered to Ranjít Singh, who took possession of the town and fort of Ludhiána, and made them over with the adjacent villages to his nephew Rája Bhág Singh of Jínd. He proceeded to Patiála on pretence of settling the disputes

CHAP. I. B.
History.

Mahárája Ranjit Singh's invasions and annexations: extinction of the power of the Rais: division of the country.

between the three chiefs, and returned to the Punjab *viá* Umballa and Thánesar. In the following year (1807) he was again called in; and, crossing at the Hariki ford (Sobráon), he proceeded to Patiála, and thence into Umballa District where he besieged and took Naraingarh. In these two expeditions Ranjít Singh, besides stripping the Rais of all their territory save two or three villages given them for maintenance, also annexed the possessions on this side of the river held by his widow, Ráni Lachmi of Sudha Singh (Sánahwál as well as those of Tára Singh Ghaiba, also held by a widow, and the Kákar villages). The spoilation of the Ghaiba family was perhaps the most shameless of all these transactions, as Tára Singh had died in that very year while accompanying the Mahárája on his expedition. These conquests were divided by the Mahárája between himself and his adherents. Rája Bhág Singh of Jínd got about 100 villages round Ludhiána and in the Bassian *iláqa;* Sirdár Fatteh Singh, Ahluwália (ancestor of the present Kapurthala chief), nearly the whole of the Jagráon Tahsil and the Dákha *pargana;* Sirdár Gurdit Singh of Ládwa a number of villages about Badowál; Bhái Lál Singh of Kaithal, 16 villages about Gujarwál; the Nábha chief, some villages in Pakhowál; while men of less note, such as the Sodhís of Nandpur, got *jágirs.* Diwán Mohkam Chand was put in charge of the country reserved by Ranjít Singh for himself.

Interference of the British Government: treaty of 1809.
British Cantonment established at Ludhiána.

By this time the British Government had made up its mind that further aggressions by Ranjít Singh on our side of the Sutlej should be stopped and the chiefs taken under our protection. Mr. Metcalfe was despatched to conclude a treaty with Ranjít Singh and joined his camp at Kasúr in September 1808. Immediately after this Ranjít Singh crossed the Sutlej on his third invasion and attacked Farídkot and Máler Kotla, notwithstanding the remonstrances of our envoy. After accomplishing his objects he returned to Amritsar, and there Mr. Metcalfe communicated to him the decision at which the Government had arrived—that all conquests made in his first two expeditions might be retained, but that for the future the country between the Sutlej and Jumna was to be considered under our protection, and all territory seized during the last expedition restored. To support this demand a force under Colonel Ochterlony was moved towards the frontier, and on February 18th, 1809, the troops reached Ludhiána and took up a position there. It is matter of history how Ranjít Singh finally yielded to all our demands and entered into the treaty of 25th April 1809, by which he and his dependents were allowed to retain all territory on our side of the Sutlej acquired in 1806 and 1807. The occupation of Ludhiána as a military outpost was intended to be temporary only; but the troops were never withdrawn. We had by the treaty taken under our protection all the Cis-Sutlej chiefs, except those who had been brought into the country by Ranjít Singh; and the management of our concerns with them required the presence of a Political Agent and a force at this point.

CHAP. I. B.
History.

History of the country from 1809 to 1835: our first acquisition of territory.

General Ochterlony held political charge at Ludhiána from 1809 to 1815, and was succeeded by Captain Murray, after whom came Sir Claude Wade. (1823-38) Sir D. Ochterlony and Sir C. Wade had the full powers of agents, but otherwise the post was held by an assistant. It was General Ochterlony who gave the fort its present form and Ranjít Singh set up that of Phillour to face it after the conclusion of the treaty of 1809. In 1835 Rája Sangat Singh of Jínd died, and with him the direct line of the house failed. The escheat of the Jínd territory, or at least of all that Ranjít Singh had bestowed on Rája Bhág Singh, was claimed by the former; but it was finally decided that Sarúp Singh, a collateral of the late Rája, should succeed to the ancient possessions held by Rája Gajpat Singh and that all subsequent acquisitions should escheat to the British Government unless they had been granted by the Maháraja after the treaty of 1809 ("Punjab Rájas," p. 34, *et seq*). By this decision we acquired upwards of 80 villages round Ludhiána and Bassian, with a revenue of about Rs. 1,00,000; and these formed the nucleus of the present District, the administration being carried on for the next ten years by the Assistant Political Agents at Ludhiána, a list of whom will be found at p. 306 of the Punjab Rájás, and also in para. 35 of the Settlement Report by Mr. Davidson.

Circumstances leading to the first Sikh war (1835–1845).

Ranjít Singh died in 1839, and his death was followed by six years of disorder. It would be out of place here to give a detailed account of the circumstances which led to the outbreak of the first Sikh war; but a short notice of our position south of the Sutlej is necessary, as the neighbourhood of Ludhiána was the scene of part of the struggle between us and the Khálsa army, and the position was throughout of the first importance. Up to 1838 Ludhiána was our only outpost on the Punjab frontier; but in that year a large force was assembled at Ferozepore for the invasion of Afghánistán, and that place threw Ludhiána into the shade, being within easier reach of Lahore. Ferozepore and the territory round it had lapsed to us on the death of Ráni Lachman Kaur in 1835, and about 1838 Sir George Clerk, the Governor-General's Agent at Umballa, built the residency at Bassian, a point from which communications could readily be maintained and control exercised over the Phulkián chiefs. On the withdrawal of the army from Afghánistán in 1842 our position in the Cis-Sutlej territory west of Umballa was this—We had two patches of territory on the Sutlej in the neighbourhood of Ludhiána and Ferozepore, which were completely isolated, and surrounded by the possessions of the Lahore Darbár and its feudatories. Map No. IV accompanying the Revised Settlement Report shows the division of the country at the time between the various States and petty chiefs.

The Sutlej Campaign.

In December 1845 the Khálsa army crossed the Sutlej, and the first Sikh war commenced. The chief interest centres round Ferozepore, which was the main point of the Sikh attack; and there the bulk of our force collected, the troops for the most part marching

CHAP. I, B. History. The Sutlej Campaign.

direct *viâ* Bassian, while Ludhiána was left with a mere garrison. But the position was not one likely to be neglected, as it covered the communications in our rear, and its importance was probably appreciated by the Sikhs, for in January 1846 their general, Ranjodh Singh Majíthia, created a diversion by appearing with an army at Phillour and crossing the Sutlej. His force consisted of 10,000 infantry, with 60 guns and some cavalry. His presence on this side of the Sutlej was fraught with the greatest danger to us, as in a struggle with the Lahore Sikhs we could at most expect little better than neutrality from their co-religionists on this side. The position of such chiefs as had territories on both sides of the Sutlej scarcely left them a choice. Nihál Singh, Ahluwália, tried to play a double game. His troops fought against us about Ferozepore, and a considerable body of them joined Ranjodh Singh near Ludhiána while their master was professing friendship to us, and saying that he had no power over them. The Ládwa chief, whose head-quarters were at Badowál, and who had everything to lose by such conduct, openly went over to Ranjodh Singh while he was still on the Jullundur side of the river. Such was the weakness of the Ludhiána garrison that he was able before crossing to burn a portion of the cantonments, and no attempt was made to bar the passage of Ranjodh Singh's army which had our communications at its mercy. Such a state of affairs was not likely to last long; and Sir Harry Smith was soon despatched from Ferozepore with a force of about 4,000 men to keep open the road to Ludhiána. On January 20th he reached Jagráon, while Ranjodh Singh occupied Badowál. Sir Harry Smith's object was to effect a junction with the Ludhiána garrison without coming into collision with the enemy, and he accordingly attempted to pass to the south of their position. But his flank was attacked on January 21st by the Sikhs with great violence near Badowál, and our troops, wearied with a long march, were for some time in considerable danger. They were extricated from the position and brought into Ludhiána with a loss of 200 men and nearly the whole of the baggage. This action was most damaging to our prestige; but its effects had scarcely time to be felt before they were effaced by a complete success. On the 22nd January, Ranjodh Singh moved to Bhundri on the Sutlej where he was joined by some regular troops of the Lahore army, his strength being thus raised to 15,000; and here he remained quietly for a week, having, as he hoped, a clear line of retreat, commanding the road along the Sutlej between Ferozepore and Ludhiána. General Smith was also reinforced, and on the 27th January marched against the Sikhs. He found them posted in the low land close to the Sutlej, with their right resting on the village of Bhundri, on the high bank, and their left on Aliwál, close to the river. East of Bhundri the ridge, which separates the valley of the Sutlej from the uplands, sweeps inwards in a semicircle crowned with villages at intervals for five or six miles, and leaves a wide open plain between it and the river. Across this plain the British army on the morning of January 28th moved to the

Action at Badowál.

Battle of Aliwál.

CHAP. I, B.
History.
Battle of Aliwál.

attack, the capture of Aliwál, the key of the Sikh position being their first object. The Sikh guns were as usual well served; but Aliwál was held by inferior troops who made a spiritless resistance. By the capture of Aliwál the Sikh left was turned, but round the village of Bhundri their right, composed of trained and enthusiastic Khálsa troops (Avitabile's regiments) made a most determined stand, and the battle is still called by natives "the fight of Bhundri." The most gallant part of the action was the charge by the 16th Lancers of the unbroken Sikh infantry, who received them in squares. Three times the Sikhs were ridden over, but they at once reformed on each occasion; and it was not till the whole strength of our army was brought to bear that they were at length compelled to turn. The Sikh troops were either driven across the river, in which many were drowned, or dispersed over the uplands. Our loss was considerable, amounting to 400 men killed and wounded. A tall monument, erected in the centre of the plain to the memory of those who fell, marks the scene of the action.

Close of the Campaign and annexation of the Cis-Sutlej country.

The battle of Aliwál cleared the upper Sutlej of our enemies, rendered our communications sure, and enabled Sir Harry Smith to join the army of the lower Sutlej with his victorious force. On the 11th of February the crowning victory of Sobráon was won, and the first Sikh war ended. The abrogation of the treaty of 1809, and the annexation of all Lahore territory on this side of the river, were its natural results; and it remained to settle accounts with the Cis-Sutlej chiefs who had either been in active opposition to us, or had withheld their assistance when it was most needed. The Ládwa chief forfeited all his possessions, and the Ahluwália chief all those on this side, while the Nábha Rája lost one quarter of his territory (for a detailed account of these transactions see "Punjab Rájas"). Those of the minor chiefs, who had not openly joined the enemy were maintained in their possessions as jágírdárs, independent power being given only to the Phulkián Rájás and the Máler Kotla Nawábs. Where the chief had gone against us, his villages were confiscated. From these acquisitions was formed in 1847 the present Ludhiána District, after a trial of Badni as head-quarters for a short period. Trifling changes have since occurred; and the map above referred to shows whence the various parts of the District, as it is now constituted, were acquired. A full account of the treatment of the petty chiefs whose territories were not confiscated will be found at pages 186-200 of the "Punjab Rájás." Police powers and the right to levy transit duties were taken away from them at once; and, when the whole Punjab became ours in 1849, they lost all civil, criminal and fiscal jurisdiction, a cash demand being at the same time substituted for their right to an undefined share of the produce. Thereafter they were "considered as no more than ordinary subjects of the British Government, in possession of certain exceptional privileges." A cash commutation was also fixed in place of the levies which they were bound to furnish to the paramount power.

CHAP. I, B.

History.

History from 1846 to 1857.

To the work of conquest succeeded that of settling our new possessions. In passing we may mention the calamity which occurred to the 50th British Regiment shortly after its return to cantonments. It had suffered severely in the battles about Ferozepore and by sickness during the campaign, and was enjoying a well-earned rest, when in a dust storm one of the principal barrack buildings fell, crushing to death 210 men, women and children. When in 1849 the Punjab was annexed, Ludhiána ceased to be of importance as a military station. The cantonments were finally abandoned in 1854, and the fort is now only garrisoned by half a company of Native Infantry. During the ten years succeeding the Sutlej campaign Ludhiána is to be pronounced happy as having no annals. The work of administration progressed and the resources of the country developed rapidly under the security given by our rule. A summary assessment in 1846-47 of the new acquisitions was followed in 1849-53 by a Regular Settlement of the whole District. Cultivation increased and trade began to flourish in consequence of the removal of the transit duties, and the improvement of communications.

The Mutiny (1857).

The following account of the events of 1857 is taken from the Punjab Mutiny Report. Mr. Ricketts had a most difficult part to play, and ably did he acquit himself. The town of Ludhiána commanded the high road from Delhi to the Punjab. It stood on the bank of the Sutlej at the head of the bridge-of-boats connecting Hindustán with the Punjab Proper. It was filled with a dissolute, lawless mixed population of Kábul pensioners, Kashmíri shawl-workers, Gujars, Baurias and other predatory races. There was a fort without Europeans to guard it, a city without regular troops to restrain it, a district traversed by roads in every direction, joining the seven commercial towns which form the emporia of its trade, and situated on a river which for months in the year is a mere network of fordable creeks which could only be guarded by a cordon of regular troops. Mr. Ricketts had for his Jail and treasury-guard a company of enemies in the shape of a detachment of the 3rd Native Infantry, and on the breaking out of the mutiny received another company of the same regiment. As there was no dependence to be placed upon these men he summoned the feudal chiefs and the independent States to send him troops. The chiefs of Nábha and Máler Kotla sent in their men, to whom the safety of the station was entrusted. Detachments of these troops were likewise charged with the protection of the eight high roads that intersect the District, of the ferries, the fords and the gháts. The undisciplined Nábha troops unfortunately failed Mr. Ricketts in his hour of need. They would not follow the Jullundur mutineers; but this is not to be ascribed to any lukewarmness of their master. He was a staunch ally to us throughout. Other natives who materially aided the Deputy Commissioner were Mith Singh, Basant Singh, the Sultán chaudhrís; and of the Kábul pensioners the following, *viz.*, Hassan Khán, Abdul Rahmán, Saleh Mahomed, Shahpur and Sháhzádá Sikandar.

CHAP. I, B.
History.
The Mutiny (1857).

On May 15th Mr. Ricketts sent his treasure to Phillour fort. It was placed under the charge of Mr. Thornton, Assistant Commissioner, whose labour in connection with it was greatly increased by the necessity of having to go to and fro a distance of seven miles across the swollen river on sudden and constant calls for money. At the same time Mr. Ricketts concentrated his police from the District at the station, adding by this movement 80 men to the force at his disposal for overawing the city. As a specimen of the vast amount of miscellaneous work entailed upon District Officers generally during the mutiny, an extract from Mr. Ricketts' report may be given showing what he was obliged to do:—

"Supervision began to be exercised over the post office; every post without exception, till October, was opened and sorted by my assistants or myself, and great and endless were the irregularities: extra ammunition was distributed throughout the District police; supplies were accumulated at the different encamping-grounds and halting-places; the prisoners were looked to and re-ironed; materials were collected for the bridge-of-boats, and the repair of its approaches; a staff of artizans and labourers, and an increased guard of picked Sikhs, were posted there. Parties of Jágírdári or contingent horse were posted at all the tahsils and thánas, and along all the roads. Proclamations of reward for the apprehension of deserters were promulgated, arms for the irregulars were escorted to Ferozepore through the deserting sepoys; ladies and children were sent out of the station and across the Sutlej to Phillour, where they had the advantage of a place of refuge in the fort garrisoned by Europeans; carriage for the transport of all kinds of army stores was collected; the bullock train arrangements were taken in hand; and the commissariat for European detachments passing through the executive in both these departments devolved, under existing circumstances, on the District Officer, until at a subsequent date the transport service was separately organized; also supervision was instituted over all dealers in sulphur and lead and vendors of caps; a system of passports for all travellers was instituted. Hindustánís supposed to be tainted were weeded out of all departments. The fort, after it was kindly vacated by the mutineers, was emptied of all its munitions of war, which were sent to Delhi; it was provisioned in case its defence became essential, which was fortunately unnecessary, as its well supplies no drinkable water; and it was placed in some sort of repair. A regiment of Sikhs was raised, in which all furlough men belonging to the district and on leave from their regiments were incorporated. Horses were collected for service at Delhi; 200 men were raised for Hodson's Horse, 50 old Sikh golandázes (or artillerymen) survivors from Sobráon, were enlisted for service before Delhi; 500 or 600 Sikhs and Mazbís were enrolled as pioneers; 250 (I think) dooly-bearers were engaged and sent to Delhi for the transport service; 200 men were raised for the North-Western Provinces Police battalion. The men on furlough from the Ferozepore and Ludhiána Sikh regiments were formed, to the number of 140 or (thereabouts), into one body, were armed and sent down to the Muzaffarnagar District, where they are still watching the Rohilkund rebels. Estimates were formed of the amount of cattle available for provisions for the vast increase of European troops; and, lastly, the manufacturing classes in the town were set to work at sand-bags for Delhi, at tent-cloth (of which 300,000 yards were made for tents for European troops), and on saddles for horse artillery; artizans were furnished for the magazines at Ferozepore and Phillour, and masons and carpen-

The Mutiny (1857).

ters for the new European barracks in course of construction in the hill stations; and so on, in various ways which have escaped my notes and my memory. The internal resources of the district were brought into play to meet the demands of the times, whilst the spirit of the people was taken advantage of to commit them to the quarrel against the common enemy, and the various subordinate official departments were roused by rewards freely given, and by punishments, sharp and severe, to lend their co-operation."

Mr. Ricketts, Lieutenant Yorke, and Captains Cox (Her Majesty's 53rd) and Campbell nightly patrolled the streets of the city at any time between 10 P.M. and 2 A.M. Captain Nicolls, Assistant Commissioner, was entrusted with the duty of forming a Sikh regiment which the Chief Commissioner ordered to be raised.

But the event which must call into prominent notice the bad qualities of Ludhiána and the excellence of its officers was the transit of the Jullundur mutineers on the 8th June. A short time previous to the arrival of the mutineers, Mr. Ricketts had received information that all the armourers and furbishers of the city were plying a most profitable trade. This could be for no good purpose. He resolved to disarm the city on the first opportunity. One presented itself when Major Coke's corps, the 1st Punjab Infantry, reached Ludhiána on its way to Delhi. At dawn on the 20th June, on the inhabitants issuing from their homes, they found themselves confronted at every street-crossing, at every market place, by bands of these ferocious warriors, and sent back to their homes. Bodies of police under European officers entered each house and took the arms concealed therein. Eleven cartloads of arms were thus discovered and seized. The inhabitants had shown the animus which had prompted them, in accumulating these arms by joining the Jullundur mutineers on their passage through a few days previous, by burning the church and the mission, by pillaging the mission-houses, by aiding the mutineers to mount heavy ordnance on the fort which the mutinous 3rd had delivered up, by supplying them with food and water, and by pointing out the residences of Government officers for plunder and destruction. This pillage could not be prevented by the civil authorities. News of the Jullundur mutiny did not reach them till 11 hours after it took place, when the mutineers were already crossing the river, and had joined the 3rd Native Infantry at Phillour. Mr. Ricketts promptly went out to encounter the mutineers, searched for them all day, and came upon them after nightfall. His auxiliaries fled; his sole supporters were a detachment of Captain Rothney's corps, the 4th Sikhs, under Lieutenant Williams, who was severely wounded; he had to work a gun with his own hands until his ammunition ran out, and then was obliged reluctantly to retreat. At Jullundur and Ludhiána, as in very many other places, the rebels had outwitted themselves. In their eager hurry to escape from Jullundur, they took blank cartridges and left the balled cartridges behind. They arrived at Ludhiána, and in the height of heir triumph at occupying the fort found, to their dismay, that it

CHAP. I, B. History. The Mutiny (1857).

contained vast stores of guns and powder, but no shot. They had none with them, not even musket balls. To remain was useless. They evacuated Ludhiána and reached Delhi in safety, owing to the weakness of the pursuit which was made by the military from Jullundur. However Ludhiána was saved. The grand trunk road remained in our power. None suffered eventually from the riot except the rioters themselves and the city which harboured them. Twenty-two of the plunderers were hanged the next day, and the city was fined Rs. 55,294.

Of this measure Sir R. Montgomery wrote :

"The proposal to levy this fine emanated from Mr. Ricketts himself. It met my cordial approval, and has been sanctioned by the Chief Commissioner. I consider it one of the most masterly strokes of policy of the whole Punjab. The principle is well understood by the people, that when any members of a community disgrace themselves by violent encroachments on the rights of others, the whole community to which they belong atones for their guilt by pecuniary compensation to the sufferers, and by a fine to Government for its outraged authority. In this case it produced the most strikingly beneficial effects. It quieted not only Ludhiána, but all the six market towns of the District. It inspired a salutary dread of Government, which was so manifestly inclined to hold its own and care for neither prince, peasant nor mutineer. Compensation was made to all the sufferers to the full extent of their losses,leaving a small balance which will nearly cover the loss to Government property."

After the display of such an animus by the rabble of Ludhiána and its neighbourhood, it was necessary to put it out of their power ever to display it again. To this end, all native houses within 300 yards of the fort were levelled, and the Gújar population turned out to the lowlands beyond the city. The Gújars of the whole district were disarmed, but not the Jats, as their subsequent co-operation with the British Government was reasonably to be expected from the good feeling they had already shown. The Gújars were also deprived of their boats, and inflated skins (for crossing the river) were made contraband amongst them. The low Hindustání population swarming in the old cantonment was dispersed and sent home.

Particular instances of sedition occurred besides the great ebullition on June 8th. A fanatical Gújar Maulvi, after preaching sedition for some time, went off to Delhi. One or two of the Kábul pensioners (descendants of Sháh Shúja) followed his example. The 3rd Native Infantry, before they left, were also known to be firebrands, but nothing could be proved against them. The Hindu *chaudrís* were, as a body, timid and lukewarm in our cause. On the other hand, instances of good feeling were also manifested. Rám Singh, one of these Hindu *chaudrís* (or headmen), was an honourable exception to his class. He was ever active in laying in supplies, and at a very critical time advanced nearly Rs. 3,000 for the public service. The Jats of the Raikot *thána* when informed of the mutinies at Ferozepore and Jullundur, set themselves to watch all the roads and wells with the aim of seizing stragglers. It were an

CHAP. I, B.
History.
The Mutiny (1857).

endless task to enumerate all the instances of good and bad feeling among the people of this district. The outline here furnished will show the difficulties that the district officers had to battle with, and the energy with which they met them. The Muhammadan Gújars of the Bét are the only people who appear to have shown any disaffection, but it is in the nature of this tribe to be discontented. The Hindu Jats, who form the mass of the population, could have nothing in common with the mutineers, and were steadfastly loyal to us. Not a single instance of disturbance in any part of the district, save in the town of Ludhiána, is recorded.

The Kúka outbreak.

The only event left to chronicle is the "mad attempt" by the Kúkas in 1872. An account of the rise of this sect will be found in the next chapter. The proceedings of Rám Singh's followers had caused anxiety to Government for many years, and special precautions were from time to time taken to prevent large gatherings of them. Small disturbances occurred at the religious fairs here and there; and in 1870 "butcher" murders were committed in one or two places, the rage of the Kúkas being directed against the killers of kine. On the 13th January 1872 there was a meeting of Kúkas at Bhaini, and a gang of about 150 of these, after working themselves up into a state of religious frenzy, started off under the leadership of two Jats of Sakraundi in Patiála territory. Rám Singh informed the police of their intention to do some mischief, saying that he had no control over them, but it was considered sufficient to see them out of our territory. They were armed with axes, sticks, &c., only, and are said to have declared that the town of Máler Kotla would be the object of their attack. They went to Pael in Patiála territory without causing any disturbance, and re-appeared next day near to Malaudh, the seat of Sirdár Badan Singh, on which they made a sudden onset with the idea, probably, of getting arms and money. They are said to have wanted the Sirdár to lead them. In this attack two men were killed on each side and a few wounded, and the gang succeeded in securing three horses, one gun and one sword. No one joined them anywhere on their march, and they never numbered more than 150 men at the outside. They next proceeded to Kotla, which is nine miles distant from Malaudh, and on the morning of the 15th made a sudden attack on the palace and treasury of the Nawáb; but were driven off when the Kotla guards had recovered from their surprise, and pursued to Rurr in the Patiála territory, where to the number of 68 they surrendered to the Patiála authorities. At Malaudh and Kotla they had killed 10 men and wounded 17, while their own loss had been 9 killed and 38 wounded. On getting news of the attacks on Malaudh and Kotla, Mr. Cowan, the Deputy Commissioner of Ludhiána, started for the latter place, and telegraphed for troops, which arrived soon after. Mr. Cowan executed by blowing from guns at Kotla 49 of the captured men, and the others were tried by the Commissioner (Mr. Forsyth) and executed on the following day. Thus ended the

CHAP. I, B.
History.
The Kúka outbreak.

Kúka outbreak of 1872. If the Kúkas ever had any plans for a rising they must have been completely upset by these insane proceedings of a small body of fanatics, rushing about the country armed with sticks and axes. The people of the villages through which they passed appear to have been scared by them, and the inhabitants of Rurr, where they were captured, deserted their houses in a body on the approach of the band. Of course Rám Singh and his doctrines were responsible for what happened; and he had become a danger to the State, as similar disturbances might be created at any time by his followers. Rám Singh was at once deported to Rangoon and remained a State prisoner till his death in 1885.

The Fort at Ludhiána which was the last relic of the old cantonment was garrisoned until 1903 by a company of Native Infantry, under the command first of a British and latterly of a Native Officer. In 1903, however, it was evacuated by the troops and handed over to the Civil authorities.(1)

District Officers.

NAME.	From	To	NAME.	From	To
Capt. H. Lakrins	1846	13th June 1849	Mr. Thomas ...	Octr. 1867	One month.
Mr. George Campbell.	14th June 1849	13th June 1850.	" Tolbort ...	1867	Ditto.
" Edward Brandreth.	1850	About three months.	" C. P. Elliott ...	1867	31st March 1869.
" J. Wedderburn	1850	About two months.	Capt. E. P. Gurdon	1st April 1869	17th Octr. 1869.
Maj. P. Goldney ...	Novr. 1850	Jany. 1854.	Col. R. Elliott ..	18th Octr. 1869	16th July 1870.
Mr. H. Brereton ...	1854	...	" Hawes ...	16th July 1870	Two months.
Capt. Frazer ...	1854	About one month.	Mr. C. W. Cowan ...	Octr. 1870	Jany. 1872.
Mr. H. Brereton ...	1854	...	Col. P. Maxwell ...	1872	A few days.
" Fendall Thompson.	Decr. 1854	June 1856.	Mr. C. W. Cowan...	1872	...
" Nisbet	1856	...	Major Parsons ...	1872	2nd March 1872.
" Ricketts ...	March 1856	Septr. 1857.	Capt. C. Beadon ...	April 1872	28th Octr. 1872.
" Thomas ...	1857	For three months.	" G. G. Young	28th Octr. 1872	March 1873.
" Ricketts ...	1857	...	" R. T. M. Lang	1873	One month.
" C. P. Elliott ...	1857	...	Maj. E. P. Gurdon	April 1873	31st March 1877.
" Simpson ...	...	...	Mr. G. M. Ogilvie	1877	...
" S. Hogg ...	...	...	Capt. C. E. Macpherson.	1877	13th August 1877.
Capt. MacNeil ...	Octr. 1858	7th March 1862.	Mr. G. E. Wakefield	13th Augt. 1877.	10th Feby. 1881.
" Davies ...	May 1862	July 1862.	" F. D. O. Bullock	10th Feby. 1881.	20th Augt. 1881.
" MacNeil ...	...	...	" C. P. Bird ...	20th "	24th Octr 1881.
Mr. C. P. Elliott ...	7th March 1863	21st May 1867.	" G. E. Wakefield	24th Octr. 1881.	22nd Feby. 1887.
Capt. Millar ..	...	One month.			
" Paske ...	1867	17th Octr. 1867.			

(1) See letter No. 1436 M. W., dated 19th of May 1903, from Under Secretary to Government of India, Military Department, to the Lieut.-General Commanding the Forces, Punjab; and letter No. 2017 G., dated 6th of June 1903, from Secretary to Government, Punjab, Public Works Department, to the Superintending Engineer, 3rd Circle.

CHAP. I, B.

History.

District Officers.

NAME.	From	To
Mr. G. C. Walker	22nd Feby. 1887 ...	8th Novr. 1887.
Lt.-Col. W. J. Parker	8th Novr. 1887	6th June 1889.
Mr. H. C. Cookson	6th June 1889	10th Septr. 1889.
Lt.-Col. W. J. Parker	10th Septr. 1889 ...	22nd Feby. 1890.
Mr. G. Hughs	22nd Feby. 1890 ...	12th Decr. 1890.
,, W. Chewis	12th Decr. 1890	16th Septr. 1891.
,, J. C. Brown	16th Septr. 1891... ...	28th March 1892.
,, J. G. M. Rennie	28th March 1892 ...	8th Decr. 1892.
,, C. P. Egerton	8th Decr. 1892	16th Jany. 1893.
Maj. F. W. Egerton	16th Jany. 1893	16th July 1894.
Mr. H. A. Rose	16th July 1894	30th Augt. 1894.
Maj. F. W. Egerton	30th Augt. 1894	24th Novr. 1894.
Mr. T. J. Kennedy	24th Novr. 1894	22nd Feby. 1895.
,, H. A. Rose	22nd Feby. 1895 ...	6th May 1896.
,, C. H Atkins	6th May 1896	5th Augt. 1896.
,, H. A. Rose	5th Augt. 1896	24th Augt. 1897.
,, C. H. Atkins...	24th Augt. 1897	28th Septr. 1897.
,, H. A. Rose	28th Septr. 1897 ...	1st April 1898.
,, W. A. LeRossignol	1st April 1898	7th June 1899.
Capt. B. O. Roe	7th June 1899	6th Septr. 1899.
Mr. W. A. LeRossignol	6th Septr. 1899	1st June 1900.
,, S. Wilberforce	1st June 1900	25th June 1900.
,, W. A. LeRossignol	25th June 1900	10th April 1901.
Diwan Tek Chand	10th April 1901	10th Octr. 1901.
Mr. W. A. LeRossignol	10th Octr. 1901	26th March 1902.
,, J. G. Silcock	26th March 1902 ...	15th July 1902.
,, C. F. Usborne	15th July 1902	17th Septr. 1902.
Captain H. S. Fox-Strangways ...	17th Septr. 1902... ...	To date.

Formation of district and changes of boundary.

The District practically assumed its present dimensions in 1850. The first portion consisted of the estates belonging to Jínd which lapsed in 1835, on the death of Rája Sangat Singh. These estates included Ludhiána itself and 84 villages, yielding a revenue of Rs. 98,229.

On the termination of the Sutlej campaign the whole of the Lahore and Kapurthala territories on this side of the river were confiscated, together with one-quarter of the possessions of the Nábha Rája, and the whole of those of the Ládwa chief. In 1849, on the annexation of the Punjab, the territories of the petty sirdárs and confederacies, who had been under our protection since 1808, but had enjoyed a sort of independence, were incorporated in the Ludhiána District as *jágírs*.

From the time of the constitution of the District up to 1866, it was divided into four *tahsíls*. Tahsíls Samrála (called at one time Sarai Lashkari Khán), Ludhiána, Pakhowál and Jagráon; but in 1866 the Pakhowál Tahsíl was broken up, and a few villages added to Jagráon, while most of them were attached to Ludhiána. There are now three tahsíls, with head-quarters at Ludhiána, Samrála and Jagráon.

Ludhiána tahsíl has a larger revenue than nearly half of the Districts in the Province, and from a glance at the map it would appear as if the grouping of the villages was very awkward, those of the *Jangal* lying much nearer to Jagráon than to Ludhiána. But the whole of the Malaudh *pargana* which includes the villages about Malaudh and also the detached ones referred to above, is, with

CHAP. I, B. History. Formation of district and changes of boundary.

the exception of two or three villages assigned to other *jágírdárs* held in *jágír* by the Malaudh family.

The four old tahsíls comprised the following *parganas* :—

Tahsíl.	Pargana.	Tahsíl.	Pargana
Ludhiána	Umedpur. Bhartgarh. Dákha. Sánahwál. Ludhiána. Núrpur.	Samrála	Utálan. Bahlolpur. Khanna.
Pakhowál	Akálgarh. Bassian. Pakhowál. Gungrána. Malaudh.	Jagráon	Bhundri. Jagráon. Sidhwán. Siwaddi. Hatur.

On the abolition of Pakhowál *tahsíl*, the *parganas* of Pakhowál, Gungrána and Malaudh were added to Ludhiána, and those of Akálgarh and Bassian to Jagráon.

At annexation the country was found to be divided into *ilákas*, or groups of villages each held by a chief; and at the Regular Settlement these were doubled up in some places, and in others preserved as separate *parganas*, with a very unequal result. Thus Khanna *pargana* contains 118 villages, and has a revenue of Rs. 1,79,969; while Umedpur has 12 villages, and pays Rs. 14,414 revenue. These *parganas* were retained in the last Settlement.

Antiquities.

The District has few monuments of antiquity. The notice of the Hindu period at the commencement of this chapter contains such information as is available about the mound of Sunet and the ruins of Máchhiwára, the only two ascertained relics of early Hindu times. There are also mounds at several other places; but they generally mark the site of a parent village from which those about have taken their origin. Thus between Gujarwál and Phallewál the mound of Naiábad marks the first settlement of the Garewáls. There are a number of mosques and other Muhammadan monuments, none of any great importance. The oldest and most interesting is a building resembling a mosque two miles east of Sohána. It is said to have been built by Muhammad of Ghor in 1191 A.D , as he encamped on this spot after taking Bhatinda and was told in a dream to build it. It is called Bhir after a *faqír* who lived there in the middle of the eighteen century. The mosque of Mihr Ali Sháh in Máchhiwára was built by the lady Fateh Malik in the reign of Sikandar Lodi (1517 A.D.), and the Ganj-i-Shahidan or place of martyrs west of the same town is a disused graveyard where it is probable that those who fell in the battle of Máchhiwára (1555 A. D.) were buried.

Of the five tombs at Ludhiána mentioned in Chapter IV, that of Sayyid Ali Sarmast contains a mosque dated 1570 A. D. and

two tombs, one of which was probably built in the time of the Tughlaqs; and the Khángáh of Sháh Kutb west of the Phillaur road is known to have been standing for the last 600 years. The Idgáh and the Maqbara of Rai Firoz at Hatúr are said to date from the time of Humáyún, and the Maqbaras of Husain Khán in Bahlolpur and of his son Nawáb Bahádur Khán, the mosque of Barkhurdár Khán at Hatúr, and the Maqbara of Sháh Diwán at Tihára are all said to be of Akbar's time; the Maqbara of Sháh Ishq also at Tihára is not dated. Under Jahángír and Sháh Jahán the high road from Delhi to Lahore was laid out with *minárs* at every two *kos;* of these there are still standing one about a mile east of Ludhiána, and another some two miles further east: one near Sahnewál, one near the *sarai* of Lashkarí Khán and one near Ráj-pútan: they are all in good preservation.

Of the royal *sarais* which were established every sixth or seventh *kos*, that at Ludhiána has long since disappeared, that at Doraha is in Patiála territory, while that of Lashkari Khán, about seven miles on this side of Khanna, is a magnificent building in very good preservation. The inscription tells us that it was built by Lashkari Khán in the reign of Aurangzeb. It is now seldom used by travel-lers since the Railway was opened. The *sarai* at Khanna is now part of the town; but the walls are entire. There are a large num-ber of mosques and tombs of Sháh Jahán's time, especially at Bahlolpur where there are no less than five, of which, the Maqbara of Aláwal Khán Súbadár of the Dekkhan, and the bungalow of Námdár Khán are the most interesting. Also belonging to Shah Jahán's reign are the mosque of Azmat Khán at Hatúr, and that of Rahson. The Lashkari *sarai* above mentioned, and the Shaikhonwáli mosque at Ludhiána, belong to the time of Aurangzeb. Among the later or undated Muhammadan monuments may be noticed the shrine of Sulaimán Sháh Chishti at Ludhiána.

There are few Hindu temples of interest. The oldest is the *math* of Nikka Mal at Hatúr which was in existence in the reign of Humáyún: there is a temple of Mári Guga at Chhapár, built at the beginning of the nineteenth century, where a great fair is held annually.

There are the remains of Sikh forts at Lálton, 7 miles south-east of Ludhiána, and at Ganjrána, 15 miles south of Ludhiána. There is a Sikh temple at Máchhiwára, the Gurudwára of the Guru Sáhib, built by Sodhi Karm Singh to commemorate a visit of Guru Govind Singh; the palace of the Sodhís at Máchhiwára is now quite a ruin. The ruined *báoli* at Kanech, which is said to have possessed several underground rooms (*tahkhána*), is also a relic of the Sikhs. Another building commemorative of a visit of Govind Singh is the Gurudwára at Lamma.

CHAP. I, C.

Population.

Section C.—Population.

Density. *Table 6 of Part B.*

Owing to the absence of hills or large areas of unculturable waste Ludhiána stands high among the Districts of the Punjab in respect of density of total population on total area, there being 463 souls to the square mile, and this figure is only exceeded by five Districts. But in its density on the cultivated area Ludhiána only stands 12th, with 560 persons to the square mile of cultivation, among the Punjab Districts. Excluding the population of the towns, the pressure of the rural population also is not high, and it stands 14th in the list with only 488 persons to the square mile of cultivation and 458 to the square mile of culturable area.

Density by Tahsils.

The population and density of each Tahsil is shown in the margin, the density being that of the total population on the total area. It will be seen that Samrála is far more densely populated than the rest of the District, and it is one of the twenty most densely populated Tahsils in the Province, in spite of a decrease of fourteen persons to the square mile since 1891.

Tahsil.	Population 1901.	Density.
Samrála ...	154,995	532·6
Ludhiána ...	333,337	488·
Jagráon ...	184,765	443·1

In this connection the following remarks of the Settlement Collector written in 1883 are still of interest:—

Density. *Gordon Walker, S. R.,* § 41.

"The number of persons per square mile is 450 on total area and 543 on cultivation (1·1 acres of cultivation a head), these averages being worked out on the area as surveyed in 1879-80 and the Census of 1881. But the bare figures give us no information on the point which is of greatest importance, the pressure of population on the land; and we are driven to consider that constantly recurring problem of the classification, with a view to determine what proportion actually depends on agriculture. I have set down the urban population at 83,052; but in the case of each of the towns there is a large area attached and belonging to residents. Thus the area of Raikot is larger than that of any village in the District except one; and it would have, if there were no town, a village population of 4,000 to 5,000. So, too, Ludhiána and Jagráon have a number of separate village areas attached to them, the agricultural population living inside the towns. I calculate that the town population proper does certainly not exceed 60,000. We are then left with a rural population of 558,835; but this does not put us far on our way. Combination of occupations is the rule amongst the non-proprietary population, and the recent Census could scarcely have been expected to give us a classification that could be relied on to show how much of this rural population should be set down as depending on agriculture, and how much on trade and manufacture. Indeed, such an arrangement is not possible with a

CHAP. I. C.
Population.
Density.

society so constituted as that we have to deal with here. The whole rural population may be said in a sense to be supported by the land, each village being for most purposes a separate community. All the implements of agriculture, the materials and furniture of the houses, with most of the ordinary clothing, are produced in the village; and only a few articles of luxury, such as brass-dishes, wedding clothes, &c., are purchased in the towns. The occupations of the various classes in the villages hang together, so that they cannot well be separated. Thus the menial classes (*tarkhán, lohár, chamár*) are really the servants of the cultivator, helping him in his work by making and repairing his implements, and receiving as their wages a share of the produce. They do little work for outsiders; and they very often combine with their hereditary occupation that of agriculture. Even the shop-keepers, who are not a numerous class in most villages, and occupy a very inferior position, being mostly of the *lún tel bechná* class (sellers of salt and oil), are only assistants to the cultivators, supplying them with salt and such necessaries as they cannot grow or make for themselves. We might say that the whole population, after deducting that properly belonging to the towns and subsisting by manufactures and industries quite separate from agriculture, depends on the soil; and I think that any attempt to determine what proportion of it is supported solely by agriculture must be mere conjecture. The density of the rural population calculated in this manner is 490 per square mile of cultivation, or 1·3 acres cultivated per head. It varies greatly, as was to be expected, according to the agriculture of the District. Thus in the rich Samrála Bet, where the soil is very fertile and much of it yields two crops in the year, the incidence is 600; and in the Upper Dháia Circle of the same tahsil, where 40 per cent. of the cultivation is irrigated, it is 660; while in the sandy Lower Dháia tract, just over the Bet, it is only 467; and in the Jangal Circle of Ludhiána, with a rainfall of 17 inches and no irrigation, it is 318. The details of the three most thickly populated tracts of the District are shown in the margin.

Assessment Circle.	Persons per square mile cultivated.
Bet Samrála	600
Upper Dháia Samrála ...	600
Pawádh Ludhiána ...	630

"These proportions are as high as in most of the highly cultivated tracts of the Province, although they are much below those of some parts of Hoshiárpur and Jullundur. There can be no doubt that in places there is to some extent a pressure of population, especially in the tracts named and in the eastern parts of Ludhiána Tahsil Bet and uplands. This pressure is not universal, but shows itself in the older and larger villages where the process of subdivision of land has been going on longest. It is just in these very tracts where the cultivation is most elaborate, that the people are most tied down to their villages. Very few men of

CHAP. I, C.
Population.
Density.

the Samrála Tahsil will be found in service. From his birth the agriculturist is bound to the land, which requires his every hour; and the last thing he thinks of is seeking employment of any other sort. There is no emigration to speak of, and the direction in which the excess tries to find an outlet is better cultivation and the spread of irrigation. But for the latter of these capital is required, and this is what the cultivator does not possess.

"As for distribution by houses and families, the custom in the villages is for each family to have a separate house, and it is very seldom that a house contains more than one family. An agriculturist, when he marries almost invariably sets up a separate house, and this is the practice amongst most non-agriculturists resident in villages. The town returns show two families to each house, at all events in the city of Ludhiána. This is probably due to various causes, *e.g.*, a whole serai being counted as one house. The poorer classes in cities are also in the habit of living several families together in one house."

Towns.
Table 7 of Part B.

The District contains 5 towns and 864 villages, and the population of the former is given in the margin. At the Census of 1901 all the towns showed an increase of population, except Khanna which had a nominal decrease of 39, on the figures of 1891. Even the unhealthy town of Máchhiwára had an increase of 248 souls. Only 13 per cent. of the population live in the towns.

Town.	Population 1901.
Ludhiána ...	48,649
Jagráon ...	18,760
Ráikot ...	10,131
Máchhiwára ...	5,588
Khanna ...	3,838

The villages.
Gordon Walker, S. R., § 67.

The average population of the village in this District is large, being 678 souls. The villages are generally built of sun-dried bricks, but in most will be found one or two houses of masonry. In the ordinary Jat villages the houses are huddled together and open into narrow bye lanes, which after a dirty and tortuous course join the main thoroughfares. The lanes are seldom more than four or five feet wide. The only entrance to the village is by one or more gates whose number depends on the size of the village. All the people live inside except the *chamárs* or other outcastes, who are admitted, and have their houses at a little distance apart or round the site, facing outwards.

Village gates.

The gates are the property either of the whole village or of a subdivision of it (*patti* or *thula*), each subdivision having in this case its own. The form is the same in all cases. On each side of the roadway to a distance of twenty or thirty feet a mud platform, four or five feet in height is raised, and on these are verandahs closed on three sides, but open with pillars towards the road. The whole is roofed in (the verandahs and the roadway between them) and a very comfortable place of shelter formed, in which travellers rest and the people meet in the evening. There is sometimes very great

CHAP. I, C.

Population.

Village gates.

elaboration in these gates, and the different *pattis* will vie with each other in architectural display. The style of gate is very often a safe test of the condition of a village, but there are few now that have not towards the outside an arch of masonry work, covered with some sort of ornamental design. In a great many villages the gate is a most commodious structure of solid masonry, which would cost in many cases a single *patti* as much as Rs. 1,000; but everything, including labour, is generally subscribed, wood for beams, cowdung for burning lime, etc., and the only actual expenditure is on the pay of masons. It is on these gates principally that the architectural genius of the villages shows itself. The Settlement Officer says he has often found shelter from a storm in a village gate amidst a crowd of natives, villagers and travellers, collected with the same object.

Surroundings of a village.

The interior of a village is, as a rule, fairly clean; it is outside that the filth collects. In the eastern parts the cultivated fields come to within a few yards of the houses, leaving very little vacant space. Round the site is the usual road, and outside of this are generally small hedged enclosures (*wára* or *gohra*) in which the manure heaps are kept, and the women make the cowdung fuel. These enclosures may lie together in a piece of the *goera* or waste land adjoining the site, or they may be between the fields and the road. Sometimes a proprietor is reluctantly compelled to devote a few square yards to this purpose The village ponds (*toba*) are the excavations from which the clay for building the village have been dug out. They are used for purposes of ablution and for watering the cattle. The drinking wells are generally inside the village. If a few *pipal* trees about the pond be added, we have a complete statement of the surroundings of an ordinary village of the uplands in Samrála and eastern Ludhiána. These eastern villages are, as a rule, of average size; but the west and especially in the Jagráon Tahsil along the Ferozepore border, and in the Jangal, the villages are much larger, and the houses more spread out, land not being so valuable. Enclosures for cattle and cowdung fuel are thrown out all round, the lanes are much wider, and there is generally plenty of room round the site. The Muhammadan villages of the Bet are generally smaller than those of the Dháia, and the sites are more open and straggling. There are no gates, and entrance is possible at almost any point. The *takia* takes the place of the gate in the Dháia. This is situated outside the village, generally under the shade of a *pilkhún* tree and consists of a couple of rooms, built on one side of a mud platform three or four feet high. Travellers rest here; and above all the *hukka* is kept going. The *takia* is in charge of a *faqir* whose principal duty is to guard the *hukka* and keep it alight. A rude mosque is often attached to the *takia*; and, if there is not one, the people pray in the *takia* itself. There is generally plenty of room round a Bet village, the land adjoining the site being

Sites of the western villages.

Muhammadan villages of the Bet.

CHAP. I, C.
Population.

often uncultivated; and the *wáras* or enclosures are larger than in the Dháia.

Growth of population. *Table 6 of Part B.*

1868 ...	... 585,547
1881 ...	... 618,835
1891 ...	... 648,722
1901 ...	... 673,097

The population of the last four censuses is given in the margin. From 1881—1891 the increase was 29,887 or 4·8 per cent. From 1891—1901 it was 24,375 or 3·8 per cent., and in the twenty years 1881—1901, 54,262 or 8·7 per cent. Taking the last decade it is noticeable that the increase is chiefly in the rural areas which claim 20,457 of the additional population, when we consider the increase by Tahsils we find a striking contrast between Jagráon and Samrála. The former increased by 17,119 persons, while Samrála decreased by 3,984. Ludhiána Tahsil shows an increase of 7,322. These figures are explained in the case of Jagráon by the increase in canal irrigation, and in Samrála partly by the emigration which its absence has produced, but still more by the epidemics of fever which have ravaged the population of its malarious riverain tract.

TAHSIL.	TOTAL POPULATION.			PERCENTAGE OF INCREASE.	
	1881.	1891.	1901.	1891 on 1881	1901 on 1891
Total for the District ...	618,835	648,722	673,097	+ 4·8	+ 3·8
Ludhiána	307,559	323,700	333,337	+ 5·2	+ 2·9
Jagráon	158,767	166,252	184,765	+ 4·7	+ 11·1
Samrala	152,509	158,770	154,995	+ 4·1	−2·4

The marginal table shows the fluctuations in the population of each Tahsil since 1881. In 1901 the figures of Ludhiána Tahsil excluding the town of Ludhiána only showed an increase of 2·6 per cent., there having been a decrease in the Bet, where the soil is hard and has deteriorated since Settlement, though the falling off is far less marked and general than in the Samrála Bet which is notoriously unhealthy, the falling off in population becoming more and more marked as one approaches its eastern extremity. The result is that in spite of a slight increase in the urban population, Tahsil Samrála showed a decrease of 2·4 per cent. in the population of 1891. In Jagráon the increase of over 11 per cent. in 1901 was virtually confined to the rural population.

Growth of population. *Gordon Walker, S. R.,* § 40.

The increase of population in 1881 was thus discussed by Mr. Gordon Walker:—

"Taking the Census figures as correct, we find that there has been a steady increase, which amounted to 11 per cent. in the first thirteen years and to half that proportion in the next thirteen, the rate of increase having been the same in the towns as in the rural population. No safe conclusions can of course be drawn from the figures alone without consideration

CHAP. I, C.

Population.

Growth of population.

of the circumstances of the district at the various periods, and these I will proceed to notice. When we annexed the country after the Sutlej campaign of 1845 we found it very fairly cultivated; for our predecessors, the Sikhs, had done their best to increase their revenues by encouraging agriculture; and all the States and chiefs were under our own protection or that of Lahore. Petty feuds were uncommon, and there was general peace. But the Sikh revenue system was what we should call oppressive; and the rule of some of the chiefs was a mixture of tyranny and rapacity. Property in land was considered a burden, which often under a bad ruler became too heavy to be borne; and society must have been in an unsettled state owing to the frequent changes of rulers. In the same way there was a certain amount of trade; but it was checked by the transit duties levied at short distances by each independent chief, and by the general lawlessness. With our rule came perfect security to the husbandman and to the trader; and an immediate development of the resources of the country by the protection afforded to life and property and the opening out of communications. The increase in cultivation must have been very great in the few years that followed the Summary Settlement of 1847; but there are no details to show what it was. When the survey for the Regular Settlement was made in 1850-52 it was found that there was a proportion of 84 acres cultivated in each 100 acres of arable area; and a great part of what remained was brought under the plough within a short time after. Perhaps the best proof of the development of agriculture is the immense fall in prices between 1850 and 1860. The ruler had before that left the peasant just enough to live on, and had taken most of his dues in kind; while the latter knew that the more he cultivated the more he would have to pay, and he had probably as much land under the plough as he could manage. The effects on the population of the development of resources that followed the introduction of our rule would take some time to show themselves, and would naturally appear between 1855 and 1868. There was not room for immigration on a large scale, the whole land being owned by the villages; and there was no tendency for settlers to come from any neighbouring district, for the whole country was in much the same condition. The increase of population was all inside the district. The margin of extension has long ago been filled up, the proportion of culturable to cultivated being now one in ten; and the prudential check on population has to some extent come into effect. There has been everywhere a subdivision of holdings, and in most parts of the district the scarcity of land has made itself felt. At all events amongst the Jats and Rájpúts every man does not now marry as a matter of course, really I believe on account of the immediate expense; and in most families will be found one or two men who have remained single. It is undoubtedly the case that a state of things equivalent to polyandry prevails amongst the Jats, though it is not recognised as an institution: and the result is a distinct check on population. The Sirhind Canal has just been opened, and the productive power of a large part of the district will thereby be increased. The portions affected by it are those in which the population is now least dense; and it will be necessary for the present cultivators to call in others to their aid. But the whole of the land here also belongs to villages, and is mostly cultivated: and it is hard to say what the process of immigration will be, and whence the settlers will come. I doubt if the result will be to relieve the more thickly populated parts of this district of their surplus population. Except for this opening I should be inclined to say that the population of the district had arrived at the stationary stage, and that the rate of increase in the future would be at all events much smaller than in the past."

CHAP. I, C.
Population.
Migration.
Tables 8 and 9 *of Part B.*

The following table shows the effect of migration on the population of the Ludhiána District according to the Census of 1901 :—

	Persons.	Males.	Females.
IMMIGRANTS.			
I. From within the Punjab and North-West Frontier Province.	109,872	35,979	73,893
II. From the rest of India	4,184	2,574	1,610
III. From the rest of Asia	170	114	56
IV. From other countries	460	435	25
Total immigrants	114,686	39,102	75,584
EMIGRANTS.			
I. To within the Punjab and North-West Frontier Province.	127,788	53,430	74,358
II. To the rest of India	3,423	2,527	896
Total emigrants	131,211	55,957	75,254
Excess + and defect — of immigrants over emigrants ..	−16,525	−16,855	+330

The bulk of the immigration is from the Districts, States and Provinces in India noted in the margin. There is also a considerable volume of immigration from the countries outside India.

	Total immigrants.	Number of males in 1,000 immigrants.		Total immigrants.	Number of males in 1,000 immigrants.
Hissár	1,331	476	*Patiála*	40,428	263
Ambála	8,688	333	*Nábha*	10,772	237
Hoshiárpur	5,963	536	*Rájpútána* with Ajmer-Merwára.	1,224	561
Jullundur	14,479	444	United Provinces of Agra and Oudh.	2,358	646
Máler Kotla	8,327	253			
Ferozepore	12,605	332			

The emigration is mainly to the Districts and States noted in the margin.

	Males.	Females.		Males.	Females.
Ambála	2,585	4,985	*Nábha*	3,497	6,297
Hoshiárpur	921	2,209	Lahore	1,241	830
Jullundur	3,440	8,349	Amritsar	748	738
Kapúrthala	584	1,104	Chenáb Colony ...	11,500	6,307
Máler Kotla	1,959	4,317	Rájpútána with Ajmer Merwára.	220	86
Ferozepore	8,438	14,168	United Provinces of Agra and Oudh.	1,206	589
Farídkot	1,218	1,062			
Patiála	10,059	21,136			

The District thus loses 16,525 souls by migration, and its net interchanges of population with the Districts, States and Provinces in India which mainly affect its population are noted in the margin.

Net gain from + or loss to—		Net gain from + or loss to—	
Hissár	+ 537	*Nábha*	+ 978
Ambála	+ 1,118	Lahore	− 1,642
Hoshiárpur	+ 2,833	Chenáb Colony	− 17,795
Jullundur	+ 2,690		
Kapúrthala	− 793	Peshāwar	− 726
Máler Kotla	+ 2,051	Rájpútána with Ajmer-Merwára.	+ 918
Ferozepore	− 10,001		
Farídkot	− 1,503	United Provinces of Agra and Oudh.	+ 563
Patiála	+ 9,233		

Comparison with the figures of 1891 shows that Ludhiána lost by intra-Provincial migration alone 17,916 souls in 1901, or 13,343 more than in 1891.

Gain or loss by intra-Provincial migration.	1901.	1891.
Total	−17,916	−4,573
Chenáb Colony	−17,807	...
Patiála	+9,233	+5,127
Máler Kotla	+2,051	+2,982
Ferozepore	−10,001	−9,160

Taking the figures for intra-Imperial migration, *i.e.*, those for migration in India both within the Punjab and to or from other Provinces in India, we have the marginal data.

Loss by intra-Imperial migration.	1901.
Total	−17,155

These figures may be summed up by saying that the main trend of emigration is to Ferozepore, while the chief source of immigration is Patiála—the net result to the District by intra-Imperial migration being a loss of 17,155 persons.

The following remarks on the migration to and from the District are taken from the Census Report of 1881 :—

"Ludhiána, with its extensive riverain, occupies an intermediate position between the thickly peopled submontane districts in the north and the irrigated plains to the south. From over-crowded Ambála, Jullundur and Hoshiárpur, it receives surplus population, while it attracts immigrants from the central States which lie to its south. On the other hand, the rapid extension of canal irrigation in Lahore, Amritsar and Ferozepore has attracted a large emigration to those districts. Much of the emigration in the case of Ferozepore, Ambála and Jullundur, and almost all the emigration to Hoshiárpur, is of the reciprocal type, while in the case of the Native States no less than seven-tenths of the migrants are women. The Kashmír colony in the town of Ludhiána does not appear to have been recruited to any considerable extent during the lifetime of the present generation."

CHAP. I, C.
Population
Migration.

To a large extent these remarks hold good after 20 years. Jullundur, Hoshiárpur, and Ambála still send large contingents, but they are dwarfed by the 40,000 immigrants returned from Patiála. The increase of canal cultivation in this as in other Districts is the dominant factor in determining the movements of the population, while in this District recruiting for the native army, and especially the 15th (Ludhiána) Sikhs, draws off a large number of superfluous men. It is worth noting that the immigration of Kashmíris to this District has entirely ceased. In fact those of them who are left in Ludhiána are in such straits for employment that they are practically dependent on the charity of two or three wealthy Kashmíris in the town.

Ages.
Table 10 *of Part B.*

The value of age statistics in India is discounted by their uncertainty and their value rapidly diminishes as the numbers dealt with become smaller. The following figures show the distribution by age of every 10,000 of the population according to the Census of 1901:—

Age period.	Males.	Females.	Persons.	Age period.	Males.	Females.	Persons.
Infants under 1 ...	170	145	315	25 and under 30 ...	429	379	808
1 and under 2 ...	94	78	172	30 " " 35 ...	399	358	757
2 " " 3 ..	128	99	227	35 " " 40 ...	297	270	567
3 " " 4 ...	127	105	232	40 " " 45 ...	363	329	692
4 " " 5 ...	136	110	246	45 " " 50 ...	220	176	396
5 " " 10 ...	709	565	1,274	50 " " 55 ...	268	242	510
10 " " 15 ...	676	500	1,176	55 " " 60 ...	123	51	205
15 " " 20 ...	527	380	907	60 " over	372	312	684
20 " " 25 ...	446	385	831				

In the uplands the conditions are very favourable to longevity, the climate good and the habits of the people (Hindú Jats mostly) very temperate. There is a little fever every year in the autumn, but the effects of this generally pass away at once. In the lowlands the climate is bad and fever almost universal for two or three months every year. These different conditions result in longevity in the uplands, while in the Bet the constitutions of most people are undermined by annual attacks of fever, and they seldom live to a great age. I do not think that religion or the habits of the people do much to produce this result; but, as already observed, nearly the whole population of the Bet is Muhammadan and of the uplands Hindú. Comparing Sikhs and Muhammadans we find—

	Upwards of 60.	TOTAL.
Hindús	18,042	269,076
Sikhs	12,907	164,919
Muhammadans...	14,955	235,937

CHAP. I, C.

Population.

so that the proportion of persons living more than 60 years is greater amongst the former than amongst the latter. These remarks apply to the villages.

Vital statistics. *Tables* 11—13 *of Part B.* Average birth-rates.

Both the birth-rate and death-rate of the District are normal. The last quinquennial average was 27,815 births, or 41·3 *per mille* of the population. The highest number recorded was in 1899, *viz.*, 33,584, and the lowest in 1901, *viz.*, 23,672. The marginal table shows the figures by religion and sex. The quinquennial average for 1898—1902 was thus 41·3 for both sexes, but the male birth-rate was 21·3 as against 20 *per mille* for females.

RATE *per mille.*

YEARS.	HINDUS.		MUHAMMADANS.		ALL RELIGIONS.		
	Males.	Females.	Males.	Females.	Males.	Females.	Both sexes.
1898 ...	22·7	20·3	21·5	20·3	22·3	20·3	42·6
1899 ...	26·4	24·8	27·5	23·8	26·7	25·0	51·8
1900 ...	22·7	21·4	24·5	23·3	23·3	22·1	45·4
1901 ...	18·8	17·8	16 5	15·8	18·1	17·1	35·2
1902 ...	19·2	18·1	18·3	17·5	18·9	17·9	36·7
Quinquennial average.	21·4	20·4	21·9	19·9	21·3	20·0	41·3

Average death-rates.

The death-rates for the past five years are given in the margin. The high rate in 1900 and 1901 was due to malarial fevers; that of 1902 to bubonic plague. The mortality of the latter year was notorious, 69,915 people, or more than ten per cent. of the total population having died. The quinquennial average of deaths for the past five years was 37,141 or 55·2 *per mille* (49·2 for males and 62·4 for females) of the population. This excessive female mortality is a very marked feature of the earlier age-periods as the marginal figures show. The average excess of births over deaths in the District between 1891 and 1901 was 5,019 persons, giving a total of 50,191 for the decade. The difference between this figure and the actual increase shown by the Census of 1901 was 25,816, which represents the net loss to the District by migration.

YEARS.	Hindús.	Muhammadans.	ALL RELIGIONS.		
			Males.	Females.	Both sexes.
1898 ..	32·5	31·9	29·2	36·0	32·3
1899 ...	31·8	28·1	28·4	35·5	31·6
1900 ..	58·2	64·6	54·7	67·3	60·4
1901 ...	52·	52·8	47·9	57·5	52·2
1902 ...	101·7	108·2	90·4	120·3	103·9
Quinquennial average...	54·6	56·4	49·2	62·4	55·2

Average of death-rate in the 5-year period, 1898—1902.

Age-period.	Males.	Females.
0—1 ...	10·9	14·9
1—5 ...	9·9	10·1
5—10 ...	2·8	3·6
All ages ...	43·2	62·4

CHAP. I, C.
Population.

The birth-rate of the District is slightly above that of the Province. The figures *per mille* for the five years ending 1900 are given below:—

Average death-rates.

	1896.	1897.	1898.	1899.	1900.
Province	43·0	42·6	41·0	48·4	41·1
Ludhiána	45·3	46·6	42·6	51·8	45·4

The death-rate is also higher than the Provincial; the figures are:—

	1896.	1897.	1898.	1899.	1900.
Province	31·53	31·05	31·05	29·57	47·69
Ludhiána	34·1	34·7	32·3	31·6	60·4

Fevers.

The Bet is very malarious and from August to November fever is very prevalent. In a bad year one can scarcely find in October an able-bodied man who is not suffering from it: 1892 and 1900 were exceptionally bad years. In 1900 there were 26,861 deaths from fever and in 1892, 20,653. The annual average for the decade 1891—1900 was 14,810 deaths from fever alone. Malarial cachexia is also found but is not common. The severity of the attacks of fever varies largely, but the general result is a weakening of the constitution which makes the people less able to resist other ailments. The civil station is malarious in the autumn months, but even a few miles' journey inland seems to give comparative immunity. The most healthy part of the District is the south-west corner about Bassian and the Jangal village where the climate is always dry and the water much purer.

Small-pox.

Small-pox breaks out from time to time. In 1896 it occurred in epidemic form and 2,383 deaths from it are recorded in that year. Small-pox is generally responsible for 100 to 300 deaths annually. It has decreased considerably since the introduction of vaccination.

Cholera.

Cholera did not visit the District between 1872 and 1891, but in 1891 it carried off 1,000 persons, in 1892, 1,843, and in 1900, 437.

Other diseases

Other diseases of the bowels and of the spleen, largely caused by malarious conditions, are common. Pneumonia too claims its toll in the winter.

Plague.

Plague first appeared in the District in 1900-01 when there were 34 cases and 28 deaths. In the following year plague spread

CHAP. I. C.
Population.
Plague.

tremendously owing to the withdrawal of the cordon. Ludhiána returned 65,364 cases and 48,016 deaths. In 1902-03, however, the numbers dropped again as suddenly and the figures were 8,048 cases and 4,930 deaths. 1903-04 saw a general reduction in the Punjab plague figures. Ludhiána, however, had more cases than any other District. An inoculating staff was at work during 1902-03 and 16,040 inoculations were performed.

On the subject of plague the Civil Surgeon writing in 1904 said:—

"The attitude of the people towards plague precautions is one of indifference on the whole. Inoculation is absolutely refused. Chemical disinfection is seldom asked for, but I have frequent applications for desiccation by stoves, which appeals to the people mainly, I think, because it can be carried out with little inconvenience to the occupants of infected houses and without any wholesale removal of property. The most astonishing feature to my mind is the indifference with which non-infected villages and towns permit people flying from infected areas to enter their borders. I must add, however, that a great deal depends upon the personal influence of leaders of communities and in certain cases lately *zaildárs* of enlightenment and influence have been instrumental in getting villages to evacuate and carry out desiccation on a large scale. I have noticed also that certain villages infected in former years have, partially or completely, evacuated of their own accord on the reappearance of the disease this season and doubtless in time, the people will find from experience that their only safety lies in this measure. It seems to me that the difficulty in towns is due to a want of cohesion between leading men. Individually members of communities and influential persons will be most desirous of adopting suitable measures, but each one is afraid to take the initiative lest he should get into disfavour or his action be deliberately misconstrued by his enemies and any organized attempt to cope with the matter is doomed to fail, so that one feels much in the same position as a potter trying to mould a vessel with dry clay."

The following statement shows the effect of plague on the population of the District:—

Population on March 1st, 1901		673,097
Add:—		
Births in 1901 (March 1st to end of year)	19,656	
" " 1902	24,714	
" " 1903	28,752	
	73,122	73,122
Total		746,219
Deduct:—		
Deaths in 1901 (March 1st to end of year)	31,323	
" " 1902	69,915	
" " 1903	36,972	
	138,210	138,210
Population on January 1st, 1904 ...		608,009

It will be seen that since the Census was taken the population has decreased by 65,088 souls and this is nearly all due to bubonic

CHAP. I, C.
Population.

plague, though the recorded deaths from plague were only 56,397, since it broke out in the District.

Native treatment of diseases.

The Civil Surgeon writes: "quack" methods of treatment are common among the villagers. As soon as a man falls sick the nearest quack is sent for. For fever he will generally first prescribe a strong purgative, with strong directions for abstinence from food. The treatment of fever for a strong or a weak man is the same. Purgative medicines are obtained from the nearest Attár, *i.e.*, the native druggist's shop. They consist mostly of a mixture of senna, cassia pods, fennel, rose leaves, figs, tamarind and sugar, all boiled in water and strained through muslin. A glassful is given as a dose. Constitutional diseases are generally treated by drastic purgatives, *e.g.*, croton, the seeds of which are made into pills. The common medicine for diarrhœa and dysentery is opium. For coughs, liquorice root is given. Honey with *pípal* rubbed into a paste is also a very popular remedy. Contusions are treated by local application of *haldi* and hot fomentations. Contused and lacerated wounds are treated by stopping them with burnt silk.

All eye-diseases from simple conjunctivitis and pan-ophthalmitis are treated alike. A common paint for the eyes is a paste made of a mixture of opium, alum, and *rasaut*, *i.e.*, an impure watery extract of berberis. Another remedy is metallic zinc which is oxidized and rubbed with a small piece of *pípal*, pulverised and applied to the lids as *surma*. Alum is also used for conjunctivitis. Buboes, large boils, whitlow, local inflammation, &c., are cauterized. The milky juice of the *ak* (*calatropis indica*) is obtained by breaking twigs and leaves, and collected in a small cup of wheaten dough. This is applied over the part to be cauterized and bandaged on. For toothache the common remedy is *akarkara* (*pebliton* root) which when chewed relieves the pain. Bad teeth are extracted by the barber. For ear-ache some opium is rubbed up with oil and dropped into the patient's ear. When a man suffers from delirium or mania or a woman from hysteria it is thought that the person so affected is possessed by a demon or evil spirit and charms and magic are resorted to. Certain men are supposed to practise exorcism and these are sent for. A very common method is to burn red chillies and allow the smoke to be inhaled by the person possessed. This in many hysterical cases has a beneficial effect. Bone-setters are common in towns and large villages. For dislocation and simple fractures people generally go to them first. It is not uncommon to come across cases where from tight bandaging actual gangrene has set in, frequently resulting in the death of the patient.

Customs connected with birth. Hindús and Sikhs.
Gordon Walker, S. R., § 76.

The ceremonies observed on the birth of a child by the Hindú portion of the agricultural population are as follows:—When the midwife is called in, she ties a branch of the *siris* tree, and an iron ring over the door to notify the birth, and also to keep away evil spirits. If a son is born, the father goes at once and informs the

Customs connected with birth.
Hindús and Sikhs.

pádha or priest, and inquires whether the time is auspicious or not. If it is not, the father must make offerings to the Bráhmans. In cases of the worst combination of stars, called *gand múl*, the child in former times was thrown out to perish, as it was believed that something would happen to the parents if they kept it. The mother is kept close in the house for 13 days after the birth, when the *pádha* is called and gives a name to the child, on which occasion he receives Re. 1, and the *parohit* and others something. Bráhmans, *faqírs* and the neighbours are also fed, and sweetmeats distributed, considerable expense being incurred. This is in token of the purification, that the *sútak* or impurity is removed from the house. For a further period up to 40 days the mother does not mix with the rest of the people, only with her relations. None of these ceremonials are observed by the Jats in the case of a girl, except that *sútak* is kept. A Hindú child has no further ceremony by way of baptism, &c., to go through. A Sikh generally takes the *pahul* when he has arrived at years of discretion. The whole of these ceremonies are not strictly observed by the agricultural portion of the community. The name is given to a son in the case of a Sikh by opening the Granth Sáhib and taking the first letter of the page. Other Hindú Jats do not, as a rule, ask the Bráhman *pádha* for a name, but give one themselves or ask the *bharái*. The period of 40 days' seclusion (called *chilla*) is not kept unless for some special reason.

(1)Muhammadans.

Amongst the Muhammadans when a son is born the *qázi* or *mulláh* (priest) comes on the first to the third day and recites the *báng* or creed in the child's ear, and it receives a name from the priest or from some respectable relative.

There is little that is peculiar in the birth ceremonies observed by Muhammadans in this District. A woman generally goes to her father's house for her first confinement and on the birth of the child messages, congratulatory or otherwise according as the child is a boy or girl, pass between her parents and her husband's parents. The messengers and the midwife are rewarded on a customary scale. The young mother remains for 5 or 6 months in her father's house. After confinement the woman is secluded for three days only. On the evening of the third day she goes towards the door, where she can see the sky and the stars, accompanied by a boy of the family who has a *phálá* over his shoulders and a whip in his hand. The termination of the period of impurity is marked by a fast (*aqiqa*) *minnat*, or vows made with the object of obtaining Divine protection for the child are frequent and diverse. A child is made to wear a silver *hasli* of two or three *tolas'* weight, changing the *hasli* every year up to the age of 12. Then all the *haslis* are sold and the money used in feeding the poor. This is called *badháwa*. Another method is to shave half the head one week and the other

(1) Materials for this note were supplied by Ghulám Mohi-ud-din, Honorary Magistrate, Ludhiána.

CHAP. I, C. Population. Muhammadans.

half the next. Another is to make the boy work as messenger to an *imám* during the first ten days of *mohurram*. For this purpose he wears a special dress of black and green muslin, and feathers in his turban. These customs are more common in cities than in villages. In Jagráon and the Jangal tracts the forms of *minnat* observed by Muhammadans approximate rather to those of Sikhs and Hindús.

Circumcision (*sunnat* or *suntán*) is a ceremony of equal importance with marriage. It is performed at any time before the age of 12 in the presence of the *barádarí*. A child who is born circumcised is called *rasúlia*.

Sex. *Table 16 of Part B.*

The number of males in every 10,000 of both sexes is shown below :—

Census.	In villages.	In towns.	Total.
1868	...	...	5,475
1881	5,492	5,459	5,488
1891	5,478	5,380	5,463
1901	5,500	5,385	5,485
Census of 1901 { Hindús	5,571	5,560	5,570
Census of 1901 { Sikhs	5,527	5,849	5,533
Census of 1901 { Muhammadans	5,369	5,267	5,346

The proportions of the sexes at birth have already been noticed under Vital Statistics. In spite of the preponderance of male births the female infant mortality is so heavy that the number under 5 is less than nine-tenths of the number of boys, as the marginal table shows; and among Sikhs the proportion is only three-fourths. Indeed these data rather over-estimate the number of girls among the Sikhs, many boys in Sikh families having been returned as Hindús because they had not taken *pahul*, while all the girls were returned as a matter of course as Sikhs.

FEMALES PER 1,000 MALES BY THE CENSUS 1901.

Year of life.	All religions.	Hindús.	Sikhs.	Muhammadans.
0—1	856	872	766	898
1—2	837	844	761	890
2—3	773	745	704	859
3—4	826	819	737	894
4—5	803	784	765	852
Total 0-5	820	814	747	879
All ages.	823	795	807	870

In later life the proportion of females to males is higher among the Sikhs, but lower in the case of the other two main religions. This is almost undoubtedly due to the excess of the female over the male death-rate already noticed. The result is that there are according to the Census returns of 1881, 1891 and 1901, only 45 females to 55 males in the District. As elsewhere the ratio of females to males is somewhat higher in the villages than it is in the towns, but the difference is very slight.

CHAP. I, C.
Population.
Sex.

The proportions of the sexes vary in the different religions, but Muhammadans have a fairly high ratio at all ages, as compared with Hindús or Sikhs. The latter have a very low proportion (less than 75 per cent.) of female children under 5, and in each religion the ratio is worse in that than in the 0—1 age-period. Indeed the Hindús and Muhammadans show a steady decrease in the proportion of females as ages increase, and the Sikhs probably only improve their ratio because Hindú women are married into their families.

	FEMALES PER 1,000 MALES.		
	Infants under 1.	Children under 5.	All ages.
Hindús	872	814	795
Sikhs	766	747	807
Muhammadans ...	898	879	870
All religions ...	856	820	823

Among the Jats the figures are still more curious. Here the ratio of females to males is at its lowest in the 5—12 age-period, especially among the Hindú Jats. When the figures for any Jat tribes are taken the deficiency becomes even more marked in certain cases, as the marginal instances show. In the Garewál villages of 'Darbári' status, *viz.*, Raipur and Gujarwál, the ratios are still worse. Narangwál is also bad, and so is the Gil village of Gil.

	Jat females per 1,000 males.		
	0-5.	5-12.	All ages.
Hindús	745	679	727
Sikhs	730	720	826

Age 0—5.	FEMALES PER 1,000 MALES.		
	Tribe.		
	Garewál.	Oil.	Dháriwál.
Hindús	687	724	621
Sikhs	540	621	678

Civil condition.
Table 14 of Part B.
Betrothal among Hindús.
Gordon Walker, S. R. § 77.

After the ceremonies which follow birth the next ceremony in a child's life is its betrothal. There are now amongst the Hindú Jats two forms of betrothal—where money is taken by the girl's people, and where it is not (*pun*). The latter is the only pure form. The girl's parents generally make inquiries beforehand and fix on some family with whom they should like an alliance, and in which there is a boy suitable, the only restriction being that the family does not belong to four *gots*, with which the parents are already connected. The Nái or Bráhman of the family (*lágí*) is sent to the house selected and makes the proposal. If it is accepted, he returns in a few days with money and sugar which he has received from the other family. The father of the boy calls the neighbours, and the *lágí* is seated on a high place with the others all round him by way of doing him honour. The *parohit* or *pádha* of the family makes the boy say some prayers, and then the *lágí* puts a mark on the brow of the boy (*tilak*), and gives him the money and sugar into his lap. This completes the betrothal. It is said that

CHAP. I, C. Population. Betrothal among Hindús.

before annexation, taking a consideration for girls was unknown, because the rulers would not permit it; and it is still forbidden in the Nábha State. But now the custom is almost universal, although the transaction is still kept secret, and is never admitted; and only a few of the better families abstain from it. Indeed a Jat considers the birth of a daughter a piece of luck, for the ordinary price has in recent years run up very high. No wonder that marriage is now considered a luxury, and one wife enough for a whole family. It is almost certain that polyandry is common in practice, and the manner in which the brother claims *karewa* on the decease of the nominal husband supports this. The girl is considered as purchased by the family, who can seldom afford to pay so large a sum as her price twice over. In the case of a betrothal, for consideration the parents of the child accompany the *lági* and a bargain is struck. Part of the price is paid, and the *lági* performs the usual ceremonies. Betrothals among the common Jats take place now-a-days when the girl is 10, 12 or even older, for the longer she is kept the higher price she will fetch. Boys are kept till 18 or 20, because their parents cannot collect enough money to pay for a girl.

Marriage among Hindús. *Gordon Walker, S. R.* § 78.

Marriage under the circumstances generally follows soon after betrothal. If the betrothal is *pun*, the girl is married at about 9 years of age: otherwise when the money agreed on has been paid. The *pádhas* of both parties are consulted and a date fixed. The bridegroom and a few relations go as a marriage party (*barát*) to the bride's house and the marriage ceremony is performed.

Hindú ceremonies at marriage.

The ceremonies attending marriage are as follows:—A place is marked off (called *bedi*) with four upright stakes joined with cross-pieces of wood at the top, and inside of this the pair are seated with the Brahman who celebrates the marriage; and a small fire is lit and kept up with *ghi*. The Brahman marks off on the ground with flour what is called a *chauk*, a square divided into compartments, each representing some deity, and worships this in the name of the bride and bridegroom. When the prayers have been said, the marriage *mantar* or charm is repeated; and the pair walk round the fire and *chauk* (ceremony called *phera*) four times, the women of the spectators singing, and the Bráhman repeating his *mantars*. This completes the ceremony; and the bride and bridegroom return to the home of the latter. The bride spends a few days there, and then goes back to her parents, with whom she resides till she is finally made over to her husband two or three years after (*mukláwa*). There is almost no expense over an ordinary wedding; but where the parents are very well-to-do there is a large marriage party, and all the people are entertained at the bride's house, a good deal of money being spent on dancing girls, fireworks, &c., besides. It is also the custom in good families to give with the daughter a dower of cash, jewelry, &c., and as it is coming to be considered a sign of social rank to be able to do so

CHAP. I. C.

Population.

instead of taking money for her, it is likely that the custom will spread.

Hindú ceremonies at marriage.

Second or *karewa* marriages.

All the clans of Jats practice *karewa* or widow-marriage. The proceedings on this occasion are very simple. The neighbours are called, including the *lambardárs*, or respectable members of the village community as witnesses of the ceremony. The Brahman says a few *mantars* making a *chauk* as in a first marriage, and ties the clothes of the parties together. The man then puts a sheet over the woman's head and she becomes his wife. There is no *phera* or walking round. It is certain that there is an increasing amount of laxity in the matter of these second marriages, and people live together as man and wife without going through any ceremony. Such conduct is punished by a heavy fine under native rule.

Betrothal and marriage amongst Muhammadans.

Gordon Walker, S. R. § 79.

Amongst Muhammadans it is the custom for the parents of the boy to go to the house of the girl selected and make the proposal. If it is accepted, Re. 1 and 11 seers (*kachcha*) of sugar, and some clothes are given to the girl, and also ornaments. The priest (*mulláh*) is called, and the girl's father declares the betrothal. The boy's father is given in return a *pagri* and *khés*, and is well fed and sent away. The marriage may take place at any time, except in the months of Ramzán, Muharram, Shahbán. The *náí* of the girl is sent with some clothes to the boy's house and announces the date. The boy and his friends go on the appointed day to the girl's house in a marriage party, and the ceremony is performed by the *mulláh ;* and the dower is fixed at the time of the ceremony. The *jahéz* or marriage portion given with the girl by her parents varies according to their means, and consists of clothes, jewelry, &c., sometimes cattle. As with the Hindús, the girl spends a day or two in her husband's house, and then returns to her parents till she is finally made over (*mukláwa*) to her husband.

The Settlement Officer wrote as follows in his Census Report for the District in 1881 :—

" Although polygamy is rare, except in the case of very rich men, or of a second wife being taken by *karewa*, the number of single males is nearly double that of single females. The principal reason given for this is that one family will not give a daughter in marriage to another without either money or an exchange, by which they get a daughter in marriage to a son of theirs. The Jats mostly take money, and the price of a girl is now very high, so that many men have to remain single. But the real causes are that males are in excess of females, and that they marry at a later age. Moreover, a state of things which is practically equivalent to polyandry prevails among the Jats though not openly recognized as an institution."

Brahmans, Khatrís, Baniás and Súds generally obtain wives from other Districts, especially Jullundur, Ferozepore, and Amritsar and the Native States of Patiála and Nábha. Muhammadans generally marry in their own clans and very seldom outside the District. No regular trade in women is known to exist, but wives are as a rule

CHAP. I, C.
Population.

purchased from their parents and as the criminal records show, sometimes from professional or non-professional abductors. Amongst Jats males are married at about 15, and females at about 12 years of age. Amongst Khatrís, Súds and other Hindú tribes, &c., early marriages are common. Muhammadans generally marry at about the same age as Hindús.

Infanticide and treatment of female children

Writing in 1881 the Settlement Officer said:—"Infanticide is unknown, and female children are treated with great care by most classes (the exception, perhaps, being the Rájpúts). They are regarded as a valuable commodity by most Jats, Khatrís, Súds and the lower tribes." But enquiry showed that it certainly existed as late as 1874 in Raipur and the other Jat villages in which the Garewáls considered that they formed a superior class, and the statistics given above under 'Sex' are not at all re-assuring. They indicate that even if deliberate female infanticide has ceased to be openly practiced, girl children are treated with so much less care than boys that the mortality amongst female children largely exceeds, in some cases, that amongst males of corresponding age.

LANGUAGE.

Language.

Table X of Part II of the census report of 1901 gives detailed information as to the language spoken in the District. The figures in the margin give the distribution of every 10,000 of the population by language, omitting small figures. The language of the District is Panjábi, as spoken in the Málwa, in a very pure form. There are few peculiarities of grammar, but many of pronunciations and the names of many things are as usual peculiar to this part of the country. The glossary and illustrative songs and sayings, etc., appended to Mr. Gordon Walker's Settlement report give some idea of the everyday language of the people.

Language.	Proportion per 10,000 of population.
Panjábi.	9,890.
Rájasthání.	11.
Western Hindi.	44.
Kashmíri.	18.
Pashto.	2.
Persian.	9.

TRIBES, CASTES AND LEADING FAMILIES.

Journal of the Asiatic Society of Bengal, Vol XXXVIII, Part I.

Out of a total of 879 villages, 532 belong to Hindú and Sikh Jats; 76 to Muhammadan Jats, 98 to Muhammadan Rájpúts, 87 to Gújars, and 42 to Aráíns. The statistics of the more important *gots* are as follows: among Hindú and Sikh Jats—Gil 97 villages, Dhálívál 95, Sandhú 82, Garewál, 55, Punaich 41, Upal 22. Among the Muhammadan Jats—Kúrsá 27 villages, Túr 10, Molívál 9. Among the Rájpúts--Manj 52 villages, Ghorewáha 13. Among the Aráíns – Karu 22 villages, Rahíl 12, Narú 10. These constitute the agricultural population.

Statistics and local distribution of tribes and castes.

The principal tribes and castes as classified by Mr. Walker are given below, with their numbers according to the Census of 1901:—

CHAP. I, C.
Population.

Statistics and local distribution of tribes and castes.

Class.	Tribe.	Total.	Per cent. on whole population.
Priestly and religious	Brahman	24,551	4
	Faqir	16,808	2
Traders and shop-keepers ...	Khatri	15,727	2
	Bánia	11,210	2
	Sunár	6,888	1
	Súd	2,336	...
Agriculturists	Jat	234,739	35
	Rájpút	29,473	4
	Gújar	33,108	5
	Aráín	32,220	5
	Awán	4,580	1
Menials and artizans	Chamár	62,875	9
	Chúhra	21,559	3
	Juláha	16,736	2
	Tarkhán	20,994	3
	Jhínwár	18,293	3
	Náí	12,389	2
	Lohár	8,727	1
	Kumhár	9,674	1
	Mochi	9,233	1
	Chhímba	8,824	1

This leaves 11 per cent. of the whole population unclassified.

Distribution of land among agricultural tribes.

The table given below shows the distribution of villages among the chief agricultural tribes.

LIST OF VILLAGES INHABITED.

1	2	3	4	5	6	7	8	9	10	11	12	13
Name of Tahsíl.	Hindú and Sikh Jats.	Muhammadan Jats.	Hindú Rájpúts.	Muhammadan Rájpúts.	Gújars.	Aráíns.	Dogars.	Awáns.	Miscellaneous Tribes.	Total of inhabited villages.	Uninhabited villages.	GRAND TOTAL.
Samrála	157	49	3	26	8	2	...	...	16	261	14	275
Ludhiána	248	17	...	52	57	17	4	16	14	425	27	452
Jagráon	119	1	1	13	14	15	...	...	6	169	6	175
Total of District ...	524	67	4	91	79	34	4	16	36	855	47	902

Priestly and religious classes: Brahmans.

The Brahmans are scattered all over the District. They seldom engage in trade, and for the most part live on the Jats of the uplands, few villages being without two or three families: but their services are also required by the Hindús of the large towns. They are of the usual subdivisions of Sársút Brahmans, and no detailed account of them is necessary. The Hindú (Sultáni) Jats perhaps pay them more attention than the Sikhs, but even the Muhammadan Rájpúts make use of their services on occasions.

CHAP. I, C.

Population.

Other religious classes: Bharáís.

The principal ascetic class are the Bharáís (6,258). The Hindú Jats of the eastern parts are almost all Sultánís by religion; and outside each village there is a small *Pír Khána* or shrine erected in honour of Sakhi Sarwar Sultán. This is in charge of a *Bharáí* or guardian, who is a Muhammadan, and is not a celibate. These men are said to be Shaikhs, because they belong to no other tribe. Every Thursday they go to the shrine in the evening, light a lamp and beat a drum at it. The people make small offerings of cash, grain, &c., (*charháwa*), which the Bharáís take. They also receive small presents at other times and accompany the pilgrims who go to visit the tomb of the Saint Sultán in the Dera Ghházi Khán District. There is generally a small plot of land, half an acre or so, attached to the village shrine, of which the Bharáí gets the produce.

Udásís.

The Udásís are Sikh ascetics of a sect founded by the eldest son of Guru Nának (Srichand). The Census of 1881 found 2,366 of them in this District while that of 1901 returns only 1,949. They are mostly Jats by origin, the *chéla* or disciple and successor being usually chosen from this tribe, and are to be found in possession of the *dharmsálas* in Hindú villages, where they distribute food to such as come for it, and read the *Granth* both of Bába Nának and of Guru Govind Singh, although they do not attach much importance to the latter. The head of the college is called *mahant*, and the disciples *chélas*. They live in Sikh as well as in Hindú villages, and it is probably on this account that they do not quite neglect Guru Govind Singh. They rarely marry; and, if they do so, generally lose all influence, for the *dharmsala* very soon becomes a private residence, closed to strangers. But in some few families, such as that of Jaspál Bángar, which keeps up a very large *Langar* or alms-house it has always been the custom to marry, the endowments being large enough to support the family and maintain the institution; but the eldest son does not in this case succeed as a matter of course. A *chéla* is chosen by the *mahant* or by the family. If a *mahant* whose predecessors have not married should do so, he would lose all weight with the people. The policy of Government with regard to the grants for *dharmsálas* and *langars* is to encourage this class to throw off their religious character by converting them into mere landed proprietors.

Bairágís, Saniásís, &c.

The Bairágís (914) are to be found in charge of the *thákardwárás* or temples of Thákar, and the Saniásís, who are very few in number, of the *dévidwárás* or temples of Dévi. There are a very few Nirmilás and Nihangs to be found in some villages, where they occupy the *dharmsálás*, and also some *jogi* faqírs. These do not require a detailed account. There are one or two *déras* of Suthra Sháhi faqírs.

Sayyids.

The Sayyids have not been included in the religious classes, as they are really agriculturists. There are a few Muhammadan faqírs belonging mainly to the Madári and Jaláli sects.

CHAP. I, C.
Population.
Commercial classes: Khatrís.

Here, as to the west of the Sutlej, the Khatrís, 15,727, are the great commercial class. Their principal *gots* are Chirímunj, Nande, Khullar, Jerath at Ludhiána itself; Bahl, Kapúr, Mahre, Seth, Berí, Senchar, and Dhír at Jagráon; Batte, Sohndí and Karír at Máchhíwára, and Bahlolpur; Sahgal and Thápar at Ráikot; Had and Cham at Khanna. But the *gots* of Khatrís are innumerable.

Bánias.

There are a great many Bánias of the *gots* Gar, Goyal, Sítal, Mítal, Eran, Dheran, Básal, and Kásal. Bánias, though found everywhere are léss numerous than Khatrís. In the Jangal villages they are the only shopkeeping class. They number 11,210.

Sunárs.

The Sunárs, 6,888, are found all over the District, and are engaged in their trade of gold and silver-smiths.

The Súds. *Gordon Walker, S. R.* § 45.

The Súds, 2,336, deserve mention here, because the Ludhiána District is considered the head-quarters of the tribe. It appears from the Census Report that there are more than 20,000 of them in the Province, and that more than a quarter of these are in the Kángra District and about three-fourths in the Jullundur Division. These people are distinct from all other Hindús but their origin is a mystery, all explanation by the people themselves having the object of giving a meaning to the name which will reflect honour on the tribe. They say that they are really the same as the Raikwáls of Agra, Delhi, &c., and they have the same *gots*, but do not intermarry with them. They have become a separate tribe like the Kaiaths, whom they resemble in the laxity of their religious observances, and in their liking for wine and flesh. Geographically they are divided into the hill (*Uchándia*) and the plain (*Newándia*); and socially, into pure (*khara*) and inferior (*gola, chechár*). The Súds of the hills are said to belong to the latter class, who have degenerated at some period by widow marriage. The line is now drawn hard and fast; and the two classes do not mix, although the *gola* Súds do not now marry widows. The Súds are engaged in money-lending principally, and are to be found in Ludhiána and a few villages round, and in the town of Máchhíwára. They are fond of service as munshís, and half the patwárís of the District and most of the kánúngos belonged at one time to the tribe. Though of a good physique, they do not like active service. They are most intelligent, especially in their own interests; and there are many sayings in proof of this, *e.g.*, *Súd pár, gathri urár:* 'if a *Súd* is on the other side of the river, leave your bundle on this side.'

Religions of the Jats.

The Jats make up more than one-third of the whole population, and own 62 per cent. of the land. They are distributed by religion as shown in the margin.

Total.	Hindú.	Sikh.	Muhammadan.
234,739 100	76,886 33	131,963 56	25,890 11

It is worthy of note that Sikhism which in 1881 was the

CHAP. I, C.
Population.

religion of 46 per cent. of the Jats in this District is now professed by 56 per cent., the percentage of Hindús having fallen in corresponding ratio from 43 to 33.

Religions of the Jats.
Gordon Walker, S. R. § 47.

The Muhammadan Jats appear to have been converted to Islám in the time of Aurangzeb. They are to be found in the Samrála and the upper part of the Ludhiána Béts, or just over them. The other Jats are either Sultánís (Hindús) or Gurú Sikhs (including Kúkas). The Jats adhere to their *gots* or clans through all religions; and their belonging to one faith rather than to another is generally a mere matter of locality. Thus we find of the Garewál *got* Muhammadan villages in the Samrála Bét; and in the uplands, Hindú or Sikh. The Muhammadans are perhaps rather bigoted; but with the others religion will be found to have at present a secondary place.

General qualities of the Jats as agriculturists.
Gordon Walker, S. R. § 48.

The Hindú Jat of this District deserves all the good things that have been written of the tribe. If the Jats are the best peasantry in India, we may say that the Málwa Jat possesses in a greater degree than any other branch of the tribe the qualities which have earned for it this distinction. In the Málwa country is usually included at least the whole of this and the Ferozepore District, together with the greater part of the protected States to the south of them. In physique the Málwa Jat is not surpassed by any race in India, if indeed he is not to be put at the top of the tree in this respect. No regiment in the Indian Army can show such fine stalwart soldiers as those recruited from this part of the country; and although detractors are wont to say that he has a small heart in a large person, the Malwái has given ample proof that this is mere libel. The Málwa Jat appears to surpass his brother of the Mánjha in prudence and thrift; and he is a better cultivator, more capable of managing his farm. As evidence of this, we may point to the manner in which the former has succeeded in the struggle going on under our rule between the agricultural and the money-lending class. With the Málwa Jat as a rule, the class whose business is ordinarily money-lending has really very little chance, for the former turns his hand to this as easily as to anything else. When a Jat has spare money, he will not squander it; but, if he gets a chance, will lend it on the security of land. Where Khatrís or Súds have established themselves in the early years of rule, it is very hard for the people to shake them off; but in the Dháia villages most mortgages of land are to Jats, some of whom have established a very extensive money-lending business. The Muhammadan Jat, though much superior to the Rájpút or Gújar, is not equal to his Hindú fellow tribesman. He is to be found along the river, principally in the Samrála Tahsíl, and although excelling as a cultivator, he is often reckless and extravagant—a result that may be due either to his religion or to his surroundings, soil, &c.

CHAP. I, C.

Population.

Two types of the Hindú Jats.

Gordon Walker, S. R. § 49.

There are two types of the Hindú Jat to be found in this District, the difference being entirely the effect of locality. The Jat of the Pawádh, or highly cultivated and irrigated eastern tract, is a slave to his land. With him it has been all work and no play for generations, and this has told on his physique and intellect. The cultivation of his holding is a constant round of toil, especially where there is a large area under sugarcane; and he is lucky if able to knock off and give himself and his cattle a few days' rest during the rains. He has no thoughts beyond his village; and never dreams of service. But withal he is thrifty to niggardliness, and industrious beyond comparison; and it is sheer bad luck if he gets his head under water. When he has a little money to spare, he at once lends it on the security of some less lucky sharers' land. For the Jat of the Jangal the labour of cultivation is of the lightest description, and he appears incapable of remaining idle for long. He turns his hands most readily to carrying: but also goes in largely for cattle trade, service, anything in fact that will enable him to turn an honest penny, for he is seldom a rogue. His favourite method of spending the time between sowing and reaping, when he and his cattle would otherwise be absolutely idle, is to start with a cart in the direction of Ludhiána, sell his own grain, and whatever more he can collect, and return with a load of *gur* or anything else that he thinks he will be able to dispose of at a profit. The cart is probably at first the ordinary rude one used in field work, and the cattle are those that work in the plough; but after a few successful journeys he buys a better cart and probably better cattle, thus extending the field of his operations. This difference of life has produced in him mental and physical qualities, much superior to those of the Pawádh Jat, although the latter is far ahead of other tribes in both respects; and one can tell the difference at a glance. The Jat of the Jangal is undoubtedly at present the finest stamp of peasantry in India. What he will be when irrigation from the Sirhind Canal is fully developed remains to be seen. The Pawádh Jat has but one string to his bow, while his brother of the Jangal has at present many. Hard cash finds its way into Jagráon and lower Pakhowál villages through half a dozen channels. Under former rulers, whose system was to take as much from the cultivators as they could get, the Jat was usually kept down; but since annexation his genius has had full play, and he is waxing fat. I do not know of any class that ought to be so grateful to us. On occasion he can be extravagant, and very large sums are sometimes spent on celebrations, especially in Jagráon Tahsíl. This generally means that a man has more money than he knows what to do with. Besides excelling as an agriculturist, the Hindú Jat is a good subject and a most respectable member of society. He has, as a rule, no vices; and, although I would not assert that a lively sense of gratitude to us as his rulers is ever present in his thoughts, he knows that our Government gives him greater security than any preceding one did, and he is

CHAP. I,C.
Population.

quietly contented. His chief fault is quarrelsomeness, which has now developed into litigiousness.

Gots or subdivisions of the Jats.
Gordon Walker, S. R. § 50.

To the east of the District, and especially in the Samrála Tahsíl, the multitude of *gots* amongst the Hindú Jats is a very remarkable feature. Not only do adjoining villages belong to different *gots*, but inside each village will generally be found two or three *pattís* of distinct origin. This is accounted for by the manner in which the country was colonized. In the history of each village it will be seen that the founders came in comparatively recent times from different parts of the country, and belonged to different *gots;* and that they united merely for their own convenience, the common tie of belonging to the same tribe being sufficient To the south and west, on the other hand, we do find that the Jats in some instances came in bodies, and villages belonging to the same *got* lie either in groups or within short distances of each other. Thus the Sidhu and Gil Jats appear to have come eastward in large parties, and to have settled down in adjoining or alternate villages in the western part of Jagráon. But the rule throughout the District is variety of *gots*, and the few groups of villages that there are, each belonging to one *got*, are the exception. The reason for this apparently is that in the eastern parts, in the neighbourhood of Sirhind and Ludhiána, the Imperial authority was always strong enough to protect its subjects, who settled down in small villages as they came; while in the west it was less felt, and people of one tribe had to collect in large villages for protection. In Samrála no attempt was made at settlement to return the land as distributed amongst the various subdivisions; but in the other Tahsíls it was possible to do this roughly, as there were a few *gots* owning villages and groups of villages. And the details of area held by the leading *gots* in these two Tahsíls, as ascertained by the Settlement Officer, are shown below, in percentages of the total area of each Tahsíl:—

Tahsil.	Total Jats.	Garewál.	Gil.	Sidhu.	Dháliwál	Dhillon.	Sekhon.	Bhandher.
Ludhiána	58	8	3	5	3	1	1	3
Jagráon	68	1	5	9	6	2	...	...

Garewál Jats.

First in rank are the Garewál Jats. This *got* holds about fifty large villages near Ludhiána in a group, and members of it are also to be found scattered over the District; they number 17,471. They trace their descent to a Rájpút, Rája Rikh, who came from the south and settled in Kahlúr in the hills. Bairsi, son of Rikh, left Kahlúr and settled at Naiebád *theh* to the south of Ludhiána, and contracted a marriage wih a Jatni, called Rúpkaur, and had to start a *got* for himself, as his brothers would have nothing further to do with him. His son was *Gare*, whence the name of the *got;* but another fanciful origin is *Karewál* from *karewa*. The

CHAP. I, C. Population. Garewál Jats.

descendants of Bairsi gradually spread over the country to the south-west of Ludhiána. The Garewáls are admitted by the other *gots* to be superior, and are called *sáhu log*, *i.e.*, superior. As amongst the Rájpúts, their women are secluded, and do not take part in field-work. Their girls are sought in marriage by the best families of Sardárs, and even by Rájas. The Garewál families of Ráipur, Gujarwál and Nárangwál had a sort of local authority at the close of the last century, and are called by pre-eminence *sáhu log*. The Garewáls are in consequence of all this the proudest of the Jats, and somewhat inferior as cultivators. They are also very extravagant and quarrelsome; but they take to service better than any other *got* as they hold it honorable, and in all of their villages will be found men who are either serving in our army or in receipt of pensions. A great deal of money thus finds its way into their hands. When they trust to cultivation alone, they are not so successful. A widow can marry her *dewar* (husband's younger brother) or *jeth* (husband's elder brother) only. This is also the rule among the Gils and Sidhús. Among the endogamous subdivision of the Naibs, widow remarriage is not allowed. Among the remaining sections of the Jats a widow is expected to marry her *dewar* or *jeth*, but varying degrees of laxity obtain in the observance of the custom.

Gils.

The Gils (10,289) own about forty villages, mostly in Jagráon Tahsíl. They are next in rank to the Garewáls, and their women are secluded. They are also fond of our service. They here claim descent from Súrajbansi Rájpúts, their ancestor being a king of *Gharmela* in the south, whose son, Akaura, took to agriculture. The son of Akaura, Gil, founded the *got* which moved northwards by degrees. They came to this District from Kusla in the Jangal *iláqa* about 250 to 300 years ago, in the reign of Sháh Jahán it is said. The Gils are first rate agriculturists; but their habits are generally extravagant.

Sidhús.

The Sidhús (12,415) have a good many villages in Jagráon Tahsíl, where there are two or three "Sidhwáns." They are a well-known *got* throughout the Lahore and Amritsar Divisions, and much has been written of them. Those of the Ludhiána District are of the *Barár* subdivision; and came from the south-west, from Farídkot it is said, in the time of the Rais within the last 200 to 300 years.

Dháriwáls.

The Dháriwáls (12,361) have a good many villages lying about Pakhowál and are found in the Jagráon Tahsíl mostly Their ancestor was, as usual, Rájpút, who came from Jaisalmir and settled in Kángar in Nábha territory, becoming a Jat. From Kángar his descendants came into this District under the Rais and their Sikh successors. The Dháriwáls are accounted one of the superior *gots* of Jats, but do not differ much in their customs from the others.

Bhandhèrs.

The Bhandhérs are the descendants of Bhandhér, who was the offspring of the union of a Rájpút and a woman of inferior caste,

CHAP. I, C.
Population.

He settled in Bhatinda first, and thence his descendants migrated to Rao Siáná in the Malaudh *iláqa*, where the tribe now holds ten or twelve villages.

Sekhons.

The Sekhons had a similar origin to the Bhandhérs, and came to this District from some place in Patiála territory, Bhadaur it is said. Their villages are scattered all over the District.

Dhillons.

The Dhillons (6,394) say that they came from the Mánjha in the reign of the Emperor Muhammad Sháh.

Minor gots *of the Jats are*—

Mán	4,868
Sindhu	5,338
Mángat	3,547
Chíma	3,583

It would take up too much space to detail the tradition as to the origin of each of these. They are to be found scattered over the District, holding single villages or subdivisions of villages.

The Rájpúts; their character; subdivisions of the tribe.
Gordon Walker, S. R. § 51.

The Rájpúts are undoubtedly the oldest of the agricultural tribes that now hold the District. Mr. Walker writes: "It might perhaps be taken as good evidence of the demoralizing effect of the Muhammadan religion that the Hindú Rájpút is very little inferior to the Jat as a cultivator. In the Bét of Samrala the most prosperous village belongs to them, the proprietors being free of debt and largely engaged in trade. The Muhammadan Rájpút of this District possesses at least all the bad qualities generally ascribed to his tribe. He has a good physique, but this is about all that can be said in his favour. As a cultivator he is useless, being indolent and apathetic to a degree. He will never do an honest day's work if he can help it, and spends every penny he can borrow. His village is generally a picture of slovenly cultivation; and he will tell one that this is because it is not his proper business to follow the plough, and because his women are secluded. If possible he will rent his land to some one else, and never fails to try to spend more than his neighbour on a marriage celebration, regardless of the fact that it is certain ruin to him. His women are said to be quite incapable of managing their household affairs, and the Hindú shopkeeper in a Rájpút village makes a fortune in a very short time, at first, it is said, by cheating the women, and then by getting the men into his books. If a Rájpút does take to service, it is only in a half-hearted way; and he will on the slightest excuse throw it up and return to his village. In fact the Muhammadan Rájpút of this District has, as far as I know, no redeeming points in his character, and is a perfectly useless member of society. I may mention that at the Regular Settlement the Muhammadan Rájpút villages were treated very leniently, and in many cases pay half or one-third less than their neighbours; but this moderation

The Rájpúts; their character; subdivisions of the tribe.

appears to have had no other effect than to encourage further extravagance. The great feature in a Rájpút's character is, I think, a complete want of anything that could be so designated. He is the most vain and foolish of mortals, and can seldom give a reason for anything that he does. He is, as a matter of course, discontented; but it would require a peculiar state of society to suit him. These remarks apply to the tribe as a whole; but there is a daily increasing number of members of it in whose favour an exception should be made." The Rájpúts in this District are mainly Muhammadans, at the Census of 1901 they numbered 29,473 of whom 1,331 were Hindús, and 344 Sikhs. The Hindu Rájpúts inhabit two or three villages in the Samrála Tahsil. The most important subdivision of the tribe are Manj Bhatti, Ghosewaha, Punwár, Náru, Tawar, and Warya. Of these the Manj are the most numerous (5,990). They are all Muhammadans and are found chiefly in the Jagráon Tahsil. They profess to be Bhatti Rájpúts. The Manj Rájpúts own a good many villages in Jagráon Bet and uplands. They come from the south-west, their ancestor Cháchu leaving Farídkot and settling at Hatúr. From Hatúr the descendants of Cháchu founded several large villages, Andlu, Halwáráh, &c., in this District, and also crossed the Sutlej. The family of the Rais of Raikot is looked upon as the head of the *got* on this side of the river. These Rais at one time held a great part of the District under their sway, and a detailed account of the family will be given elsewhere.

Gordon Walker S. R. § 50.

Manj.

The *chhat* system prevails among the Manj Rájpúts.[1] The two ancient *chhats* of Hatúr and Talwandi Rai in this District date from the time of Bábar, while two more, Raikot and Hatwára, have since been added as Manj Rájpúts have settled in them. The Rais of Talwandi and Raikot pay a *chhat* of Rs. 20. There are two *makáns* in the District; Raisar and Andlu. The custom appears to be losing vogue.

Ghorewáhás.

The Ghorewáhás are another numerous section (4,562), live rather to the east of the District in the Samrála Tahsil, owning a large number of villages along the Sutlej both in this District and in Jullundur. They founded the town of Ráhon in the Jullundur District. They are Surajbansis and trace their descent from Hawáhá, brother of Kachwáhá, who came into the country in the time of Shaháb-ud-dín Ghori (1,150 A.D.) and was allowed a grant of as much land as he could ride round in a day. Others say he presented a *nazar* of a horse and got the tract which his descendants now hold.

The Bhattis rank highest in the tribe. They usually marry among themselves, but sometimes give their daughters to other Rájpúts of good family. Their ancestor, Sheikh Cháchu, was granted the state of Hatúr, on his conversion to Islám, which had formerly

(1) See Punjab Census Report, 1901, p. 323.

CHAP. I, C.
Population.

belonged to the Tunwár Rájpúts. The Tunwárs, Punwars, Narús and Wayas all seem to have come to this part of the country in the days of Prithvi Ráj. The Narús founded Phillaur in the Jullundur District.

Gújars.
Gordon Walker, S. R. § 52.

The Gújars of this District are unable to give any distinct account of who they are or whence they came, but it appears pretty certain that they are a nomad race (*Gau-char*=Gújar) who moved from towards the hills in search of pasture, and gradually settled down along the river for the sake of the grazing. They now hold a number of villages in the Bet or low-lands, mostly in Ludhiána Tahsíl. About 100 years ago Sardár Sudha Singh and the Kákars, who held the Bet lands under Ludhiána, located them in villages; and they have only since then taken to agriculture. The Gújars of this District are all Muhammadans. They are of good physique, tall and well made, but are said to be lacking in courage. Intellectually they are not strong; and they are, as a rule, much too easy going and careless to get on in these times. As cultivators, they are not of the first class, though superior to the Rájpúts. They have a hereditary liking for cattle, especially that of other people; and most of the Gújar villages contain men recognized by the police as criminals. They are, as a tribe turbulent, discontented and lawless ; and gave a great deal of trouble in the Mutiny. Gújar women help their husbands in the fields. The principal subdivisions are Gorsi and Chechi, also Kálas and Paswál.

Aráins.
Gordon Walker, S. R. § 53.

The Aráíns of the District 32,220 appear to have worked their way up the Sutlej from the direction of Multán. They are also said to be Kambohs converted to Muhammadanism. It is very probable that they did come up the Sutlej, for they can be traced along its banks in the low-lands of Lahore and Ferozepore and half-way up this District; but they are not to be found higher than the town of Ludhiána. They are probably a mixed race, gardeners by profession, who in some locality or other have formed themselves into a separate tribe and spread over the country. The Aráíns are all Muhammadans. They are generally small, wiry men, capable of a great deal of labour. As cultivators, they rival the Hindú Jats, but are inferior to the latter in intellect. Intensive cultivation is their strong point as extensive cultivation is the Jat's. An Aráín will support himself and his family on a very minute area of irrigated land, on which no one else could possibly exist : but, as the owner of a large holding, he is less successful than the Jat, and does not seem to have the power of managing a large farm. All the members of his family assist the Aráín in his cultivation ; and the women sell the vegetables or exchange them for grain. The Aráín is a very quiet and inoffensive member of society, and does not appear to trouble himself about politics. The principal subdivisions in this District are Ghalar, Ghalan, Jatáli.

CHAP. I, C.
Population.

Awáns. *Gordon Walker*, S. R. § 54.

The Awáns, 4,580, are said to be a race of foreigners, who came with the first Muhammadan invaders from beyond the Indus. The tribe holds some ten or twelve large villages round about Ludhiána situated in the low-lands and in the Dháia. Their number is understated in the census, some having perhaps been returned as Shaikhs. The Awáns are all Muhammadans. They are a very fine, powerful race of men, and are inferior only to the Hindú Jats in intellect and enterprise. They are very fair cultivators, but do not depend entirely on agriculture, and are always ready to turn their hands to anything. They are fond of service in the army, police, &c.; and most of their villages can turn out a number of carts which are worked for hire. In the last Kabul war they made a great deal of money by carrying between Jhelum and Pesháwar, and some of the villages depend much more on their carts than on their fields. They are an extravagant race, and spend at least as much as they earn. The Awáns are very strict Muhammadans, and say their prayers regularly. Very many of them have received a religious education and are Maulvís. Their women are secluded. Their chief fault is quarrelsomeness, which has, as in the case of the Jats, developed under us into a love for litigation.

Minor land-owning tribes; the Dogars. *Gordon Walker*, S. R. § 55.

There are a few Dogars in the Bet, 2,411. They resemble the Gújars, being of good physique, but wanting in intellect. As cultivators, they rank with the Gújars, and run them very close as thieves. Their women work in the fields. There are one or two whole Sayyid villages; and the tribe holds shares in others scattered over the District. Those of Taraf Saiadán, one of the subdivisions of Ludhiána, are respectable and well-to-do; but, as a rule, the Sayyids are poor cultivators, being much too lazy. There are a few Sainís and Kambohs, the latter being Muhammadans.

Sayyids.

Páthána.

The following Pathán tribes are represented in this District:—Balozai, Tarbau, Barakzai, Daudzai, Ghilzai, Gore, Tamán Khel, Yusafzai, Jangzai. Besides their own women, they will marry among the Chohans, Mujis and Behues, but will give their daughters in marriage to them. Patháns number 3,939. They are mostly refugees from Kabul living in Ludhiána town but an ancient colony of them hold lands in Bahlolpur.

Miscellaneous classes.

The Kaláls might almost have been classed as agriculturist for they are all either land-owners or in service, generally both. A proposal to include them among the agricultural tribes has been submitted to Government.

Kaláls.

The Kápurthala Chief held a very large portion of this District under Maháraja Ranjít Singh; and this has given the tribe a step in the social scale. They call themselves Ahluwália or Neb, never Kalál, and are Sikhs. Some of them hold small *jágírs* and they generally distinguish themselves in service.

Ráwáts.

Ráwáts own one village near Ludhiána, and number 2,298. They have certainly nothing in common with Rájpúts, being the

CHAP. I, C.
Population.
Ráwáts.

mildest of men, and first-rate agriculturists. The criminal classes of Hárnís, Bauriáhs and Sánsís, are also land-owners. The Hárnís were settled down in three or four villages in the east of the District by the Sikh chiefs who overthrew the Rais of Raikot; and the others own each of them a village. These men all call themselves Rájpúts. An account of them will be found elsewhere in this volume.

Banjáras.

Banjáras (1,099) and Lobánas (1,004) live solely in the Bet. They appear to have the same origin (said to be a Rájpút one, as a matter of course); but they are now quite distinct. The Banjáras are a somewhat superior tribe, but it is said that in this District the two tribes intermarry. They are both Hindús or Sikhs by religion; and, besides agriculture, are engaged in carrying grain, &c., on bullocks: and the Lobánas in making ropes, brushes, &c., from *munj*.

Lobánas.

The name of Lobána is applied in this District to two entirely distinct communities called in the Census Report "Musla Lobánas" and "Ludhiána Lobánas," respectively. The Musla Lobánas are so called by the other group to emphasise the fact that the two groups are distinct. They are akin to Gujrát Lobánas and give their *gots* as Pilye, Garhe, Laldize and Datles. Only two of these correspond with the *gots* of the Gujrát Lobánas. They live in the villages of Salijo Mazra, Burj Kacha, Pawat, Fattehgarh, Hambomal and Tanda Kalia. Their customs are partly Muhammadan and partly Hindú, for instance they observe the ceremony of *phiras*, but a widow is remarried by *nikah*. This eclecticism is reflected in their names.

The Ludhiána Lobánas are all Sikhs. They live entirely in Bet, owning the villages of Balbgarh, Mangli Tanda, Dholanwál, Sasrali, Rur, Tanda Kishan Singh and Gopálpur. They are also found in the villages of Garhi Fazal, Jassowal, and Lubangarh. They are said to be a branch of the Chauband Rájpút. They have the following *gots*:—Dagnawat, Udiána, Sukiána, Majrawat, Bartia, Balthia, and Barnawat. They are distinguished by having a fixed bride-price. Rs. 120 being paid if the bridegroom is a child and Rs. 140 if an adult, to the girl's father. On the Holi festival these Lobánas have a curious custom. After burying a pice and a betel-nut they heap up cow-dung cakes over the spot and make a large fire. When the fire has burned out, they gather in large numbers round the ashes and proceed to hunt for the pice and the betel-nut. Whoever finds them is very lucky, and it is believed that he who finds one must find the other. The custom is referred by them to a variant of the Praladh legend. They practice *karewa* and worship Guga Pír.

Menials and artizan classes: Chamárs.
Gordon Walker, S. R. § 56.

Next in point of numbers to the Jats are the Chamárs (62,875), who are returned as nearly one-tenth of the whole population of the District. These people are the most degraded of all classes except the Chúhras; and their position in the village very nearly approaches to that of servitude. They are known as *begári* and are found attached to every village in the District, for the zamíndárs cannot get

CHAP. I. C.
Population.
Menials and artizan classes: Chamárs.

on without them. They eat the dead cattle, and are considered so unclean that a separate place is assigned for their residence. They are bound to perform certain tasks (*begár*) for the zamíndár, and receive certain allowances of grain and all carcases of cattle. They cannot change their place of abode, for a Chamár of one village would not be allowed to settle down in another. Further details as to their dues and services will be found elsewhere. They are all leather-workers, tanning the skins of the dead animals that are given them, and making buckets for the wells, bhistis' *mashaks* (water-bags), shoes, &c. They are paid for all new goods supplied, but repairs are included in their task.

They have *masands*, but not Chamarwa Brahmans, in this District, *i.e.*, a certain section of the caste performs priestly duties. They consider themselves superior to the other Chamárs, and do not marry outside their own circle. The Chamárs bury their dead.

Chúhras.

Chúhras (21,559) are found mostly in the towns and in some villages where they are servants of the higher classes of Jats and of the Rájpúts, or are village servants (*kamín*) for the purpose of summoning people (*bulári*).

Tarkháns.

Tarkháns (20,994) or carpenters have taken to agriculture, and own shares in several villages. Those who follow their hereditary occupation are to be found in nearly every village, for they are a necessary element in the agricultural community. The Tarkhán, though classed as a village menial (more properly an artizan), is a man of very superior intellect, and occupies a good social position. He can consequently make his own terms with the zamíndár, and moves about as he likes. He does all sorts of carpenter's work, receiving a fixed allowance at harvest time for all repairs and the price of all new work. There is a large colony of Tarkháns working as carpenters in Ludhiána. These make carts, all sorts of furniture, boxes, &c.; and some of them have amassed great wealth, which they invest in land when they can. Many of them are also in service; and it is a proof of their good social position that Rám Singh, the Gurú of the Kúkas, belong to the tribe.

Lohárs.

The Lohárs (8,727) are also village servants, who do all the iron-work of the agriculturists, or they are settled down in the larger towns and follow their trade there.

Jhínwars.

The Jhínwar is not necessary in most villages, for the Jat women usually fetch the water for domestic use themselves. He is to be found in the towns or in the Rájpút and higher class Jat villages, where the women are secluded. His services are required everywhere in marriage and other celebrations. The system of caste *panchayats* is still in existence among the Jhínwars, but is said to be losing its hold on the caste. They number 18,293.

Náís.

The Náí is found everywhere, and is a very important village servant. He is the barber, and is always employed in arranging betrothals, being sent as a *lágí* or go-between. They number 12,389.

CHAP. I. C

Population.

Juláhas.

The Juláhás (16,736) or weavers are scattered over the villages, where they weave the cotton thread of the zamíndárs into cloth (woollen blankets are woven by Chamárs or Chúhras who have taken to the profession). There is a large colony of these people in Ludhiána.

Kumhárs. Mochís, Chhímbas.

The Kumhárs, 9,674, (brick-makers), Mochís, 9,233, (leather-workers), and Chhímbas, 8,824, (washermen and cloth-stampers), reside mostly in the towns. The agriculturists generally make their own bricks for the wells, but go to the Kumhárs for water jars (*chatti*) and other utensils; and have an agreement by the harvest about these. The Mirásís (5,900) are found all over the District, principally in the Rájpút villages. They live by alms.

The Kashmírís are settled in Ludhiána town. They are a dwindling community (4,766 in 1901 as against 5,421 in 1891) and are in sore straits now that their hereditary occupation has gone (see Section E. of Chapter II).

The following have been declared agricultural tribes for this District under the Land Alienation Act (Notification No. 21 S., dated the 22nd of May 1901) :—

Jats.	Gújars.
Rájpúts.	Dogars.
Awáns.	Aráíns.
Sayads.	Kambohs.
Patháns.	Sainís.

LEADING FAMILIES.

1. Phulkián Families: (*a*) Bhadaur family. *Gordon Walker*, S. R. § 88.

At pages 253 to 279 Griffin's *Punjab Rájás* will be found an account of the Bhadaur chiefship, and of the manner in which the Patiála claims over it were rejected on their merits in 1855. The estate was a portion of this and of the Ferozepore Districts, the Ludhiána villages being in the Pakkhowál Tahsíl (since abolished) till the year 1858, when the whole *jágir* was transferred to Patiála, the supremacy being allowed by favour of the British Government and not by right. It is not necessary under the circumstances to do more than mention the family. Sirdár Sir Atar Singh, K.C.I.E., resided principally at Ludhiána, where he had built a magnificent house and had opened a public library. His services in the cause of learning are too well known to require to be noticed here. He had acquired a great amount of local influence in Ludhiána. He died on 10th June 1896, leaving two sons, Sirdár Bhagwant Singh and Sirdár Balwant Singh.

In pursuance of the will of the late Sirdár Sir Atar Singh, K.C.I.E., the Library with all almirahs, chairs, &c., was sent to the Punjab Public Library.

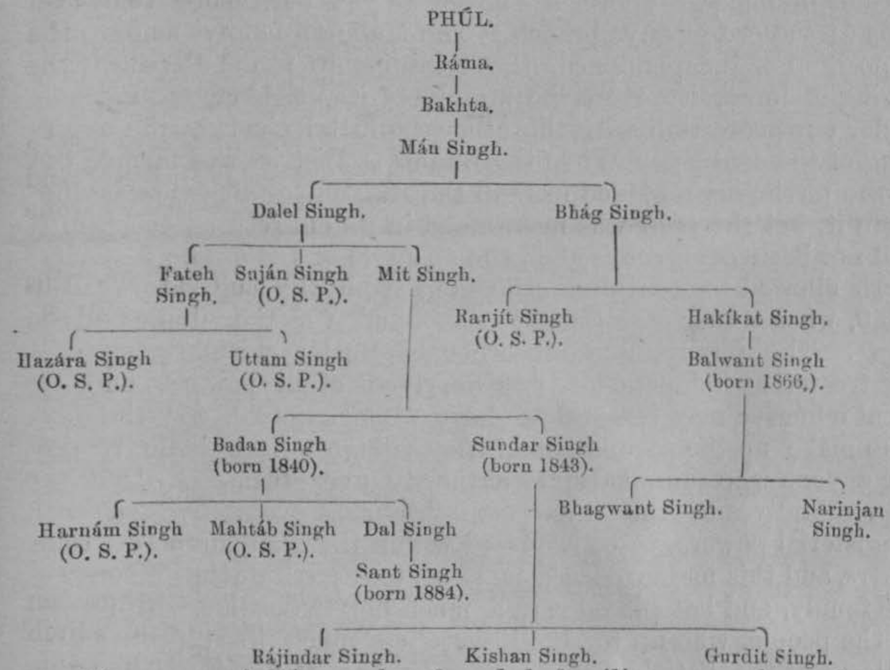
Sirdár Balwant Singh, the younger son, died recently at Bhadaur leaving a minor son. The estate is under the management of the Court of Wards, Patiála State.

CHAP. I, C.
Population.

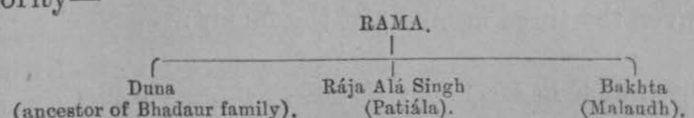
Bhagwant Singh inherited the house at Ludhiána where he usually resides, he takes no interest in local municipal affairs, and is of no use to the administration.

(*b*) Malaudh family.

The leading family of the District is that of Malaudh, a branch of the Phulkián stock, of whom mention will be found at pages 273—276 of the "Rájás." It may be well to repeat the pedigree here, bringing it up to date.



The sons of Ráma who founded families were in order of seniority—



Alá Singh and Bakhta left Bhadaur (which had been founded by Ráma) to Duna as the eldest brother, and went to seek their fortunes elsewhere about the year 1720. Bakhta settled a few families east of Bhadaur in the village of Dhipáli where he had connections, till he was called in by a Jat of the name of Lahna, who had attempted to found the village which still bears his name, but was pressed by the neighbouring villages.

Bakhta built a rude fort which was called Kot Bakhta and made this his head-quarter; but the name of Sahna has stuck to the village which still has a large fort belonging to the family. Mán Singh, the son of Bakhta, conquered the Malaudh *iláqa* from the Maler Kotla Afgháns about the year 1750. This was the period of the activity of the cis-Sutlej Sikhs against the Muhammadans which culminated in the fall of Sirhind in 1863.

CHAP. I, C.
Population.
(b) Malaudh family.

Mán Singh died leaving an extensive estate to his two sons, Dalel Singh and Bhág Singh, who quarrelled about the division of this. The dispute was referred to Sirdár Chúhar Singh of Bhadaur, and the decision then given had established the rule of succession in the family. The elder son got two-thirds and the younger one-third; and it is according to these proportions that all subsequent distributions of the *jágír* have been made within the various branches. There has never as yet been more than two sons to succeed in any branch. The Malaudh family maintained a position of independence, the relationship to the Patiála Rájás giving it immunity from the attacks of its neighbours. It came under our protection with the other cis-Sutlej chiefs at the beginning of the century. When the Ludhiána District was formed out of the territories annexed in 1846 the Malaudh estates were included in it, but the *jágír* was maintained in its entirety as the family had not been compromised in the struggle of 1845. The *jágírdárs* were allowed to continue collections from the cultivators till in 1850, when a cash assessment was fixed for the villages of the *jágír*. The family, like all other cis-Sutlej chiefs, except the six treated as independent, was deprived of all powers, and its local influence may be said to have almost ceased, for the Jats, who make up the population of the villages, have little respect for anyone who cannot display authority over them. In 1860 the representatives of the three main branches were invested with magisterial powers, to be exercised within the local limits of their *jágírs*, and this measure has done much to resuscitate the influence of the family, and has placed it in a much better position with regard to the people, who up to 1846 were as much its subjects as the villages of the Patiála State now are of the Mahárája. The value of the *jágír*, as recently assessed, is Rs. 86,455, and it is thus distributed between the three members of the family:--

		Rs.
(1).	Sirdár Badan Singh	45,910
(2).	Sirdár Sundar Singh	22,037
(3).	Sirdár Balwant Singh	18,508

The family, besides enjoying these revenues, also owns a good deal of *bír*, or land reserved by the chiefs for grazing, firewood, hunting, &c., as well as all holdings of such as absconded on the introduction of a cash assessment or subsequently. Some of the *bírs* are of considerable extent and are still covered with a growth of wood. The villages of the *jágír* were distributed between the other Sirdárs before annexation; and in 1878 between Sirdárs Badan Singh and Sundar Singh. Sirdár Uttam Singh, the head of the family lived in Rámgarh (near Malaudh) where there is a large fort built by his father Sirdár Fateh Singh. He had also the fine old fort at Sahna, built by Chaudhri Bakhta; but this he seldom visited. The Sirdár had the powers of a Magistrate of the 2nd class and civil powers in cases up to Rs. 500 in value. These powers

were afterwards withdrawn, as Government was displeased with him on account of his dispute with his wife Sirdární Ind Kaur. He was also a Provincial Darbárí. He died in October 1895 and his *jágír* and property were divided between Sirdárs Badan Singh and Sundar Singh in the ratio of two-thirds and one-third, respectively. His widow Sirdární Ind Kaur was given a maintenance of Rs. 100 per mensem, to be paid in the shares they inherited the property of their father.

CHAP. I. C.
Population.
(h) Malaudh family.

Sirdár Mit Singh lent his best assistance in the Mutiny, supplying horsemen and footmen to the extent of his ability. For this he was rewarded by the perpetual remission of half of his commutation money; and, while the other branches pay two annas in the rupee of their revenue, his descendants have to pay only one anna. Sirdár Badan Singh, who is now undoubtedly the leading member of the Sikh community in the District, resides at Malaudh. He exercised the same civil and criminal powers as his father until 1903 when he was permitted to voluntarily resign them to his son Sirdár Dal Singh. Sirdár Badan Singh was granted the title of C.S.I. on the occasion of the Coronation Darbár of 1903. He is also Sub-Registrar for the villages held by the family in *jagír*. His younger brother, Sirdár Sundar Singh, resides at Pakkhoke near Sahna and is a Provincial Darbárí. He is totally blind and consequently entirely in the hands of unscrupulous retainers.

Sirdár Hakíkat Singh died in 1875 and the estate was taken under the management of the Court of Wards as his son Sirdár Balwant Singh was a minor. The latter was educated at the Wards' School at Ambála. On attaining his majority he was invested with the powers of a Magistrate and Munsif, 2nd class, subsequently reduced to those of 3rd class. He resides at his fort at Bír, and, with the assistance of his wife's relations, is fast dissipating his property.

Sirdárs Badan Singh and Balwant Singh have accepted the rule of Primogeniture (succession by eldest son).

Tahsil Samrala.
Family of Ladhrán.
Gordon Walker S. R. § 89.

The next *jágír* in importance to Malaudh is that of Ladhrán. The ancestor of this family, Jai Singh, was a Gurm Jat of Karanke Dhírke near Atári in the Amritsar District. He was a member of the Nishánwála confederacy; and in the scramble for territory which followed the capture of Sirhind in 1763 A. D. secured a piece of territory lying between Ludhiána and Samrála with 27 villages, and 7 others in the Kharar Tahsíl of Ambála District. Jai Singh gave his brother, Nahar Singh, one of the former villages, Palmazra, which the descendants of the latter still hold. Jai Singh had two sons, Charat Singh and Kharak Singh, the latter of whom was a notorious robber and was allowed by his brother one village, Ránwán, which still belongs to his descendants. The rest of the territory went to Charat Singh, who in 1809 accepted British protection. There was a dispute with Patiála as to the Kharar

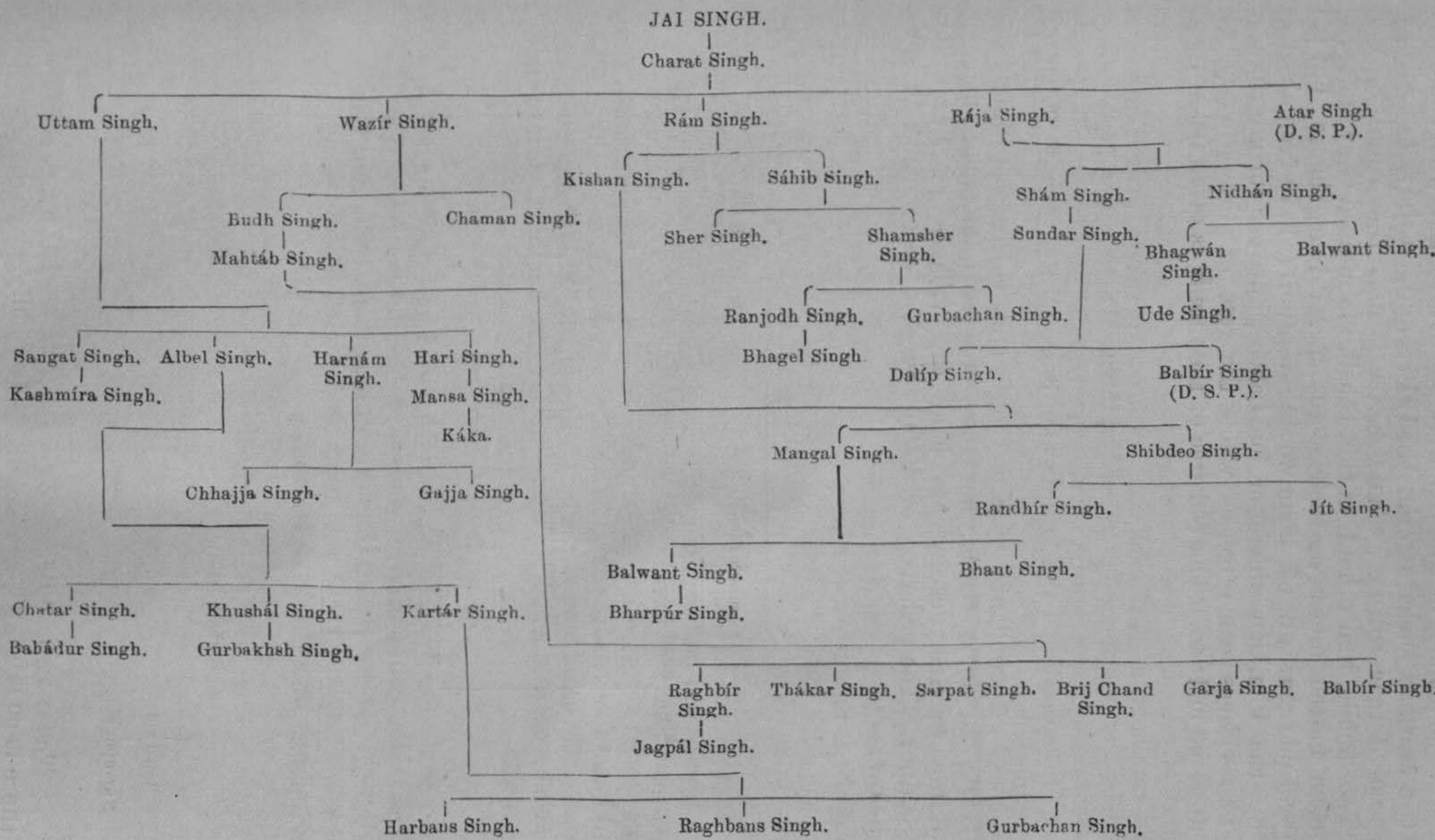
CHAP. I, C.
Population.
Family of Ladhrán.

villages, which ended in the Ladhrán family getting four out of seven. The territory in Ludhiána was small, and the relations between the family and the Nábha State appear to have been rather doubtful. At pages 392—394 of the Punjab Rájás will be found an account of the claim to supremacy set up by Nábha, and the decision of Government of India on it. Although the Ladhrán Sirdárs, like others of the Nishánwála group, were at times in actual opposition to Nábha, there can be no doubt that they gradually became to some extent dependent on that State. After the campaign of 1845-46 the Ladhrán territory passed into our hands, and was included in the Ludhiána District, the *jágír* being maintained to the family. The descendants of Charat Singh are very numerous, and the *jágír*, which is worth Rs. 24,152 in all, is becoming more and more subdivided.

One or two of the family had taken to service, Sirdárs Hari Singh and Albel Singh were Risáldárs in the 12th and 13th Bengal Cavalry respectively, Sirdár Albel Singh was accidentally killed in December 1902; and Sirdár Hari Singh enjoys a pension as Risáldár. Sirdár Albel Singh's son, Kartár Singh, is a Risáldár in the 12th Bengal Cavalry. Two more members of the family are employed as Sowárs in the 13th Bengal Cavalry; but most of them prefer to eat the bread of idleness. It is likely that in another generation or two the shares held by many members of the family will be insufficient for their maintenance. The rule of succession in the family is of *Chúndawand*, *i.e.*, the estate is partitioned according to the number of wives of the deceased, the children of each wife dividing a share between them equally. The family also owns landed property, one whole village and shares in several more and some very fine houses at Ladhrán, where they all reside.

The pedigree of the family is attached. Mahtáb Singh, the head of the family, who was zaildár, died on the 22nd February 1904. His debts are in course of liquidation from the *jágír* under the control of the Deputy Commissioner. His son, Raghbír Singh, is employed in Nábha State as Názim. There is no other man of any importance in the family.

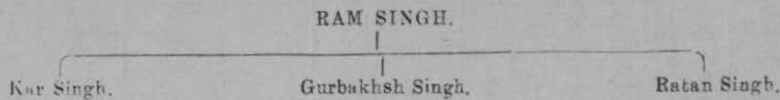
CHAP. I, C.
Population.
Family of Ladhrán.



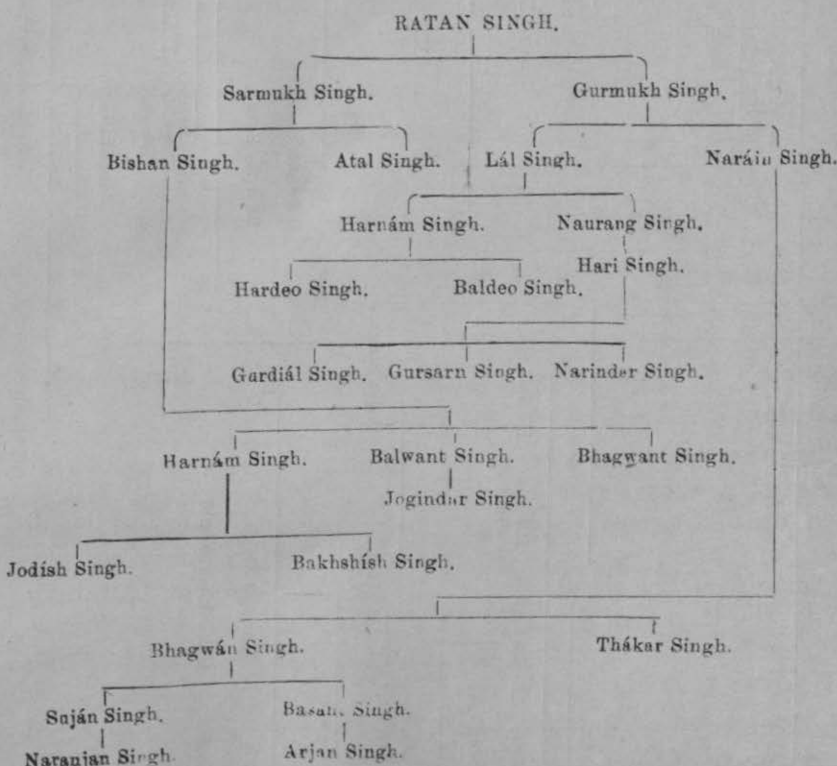
CHAP. I. C.
Population.

Kotla Badla.
Gordon Walker, S. R. § 90 (1).

The founder of this family was Rái Singh, who came from the Amritsar District in Sambat 1916; and, on the fall of Sirhind, secured four villages, Badla, Kotla Badla, Bhari and Saidpur. The family, like others in this Tahsíl, maintained their independence in the midst of their more powerful neighbours; but it is probable that all of them would eventually have been absorbed by the Phulkián chiefs or by Lahore, but for our interference. The villages came to us when the rest of the country was annexed in 1846. The pedigree of the family is given below:—



The descendants of Kar Singh and Gurbakhsh Singh hold Badla and Kotla Badla, but they are too numerous to mention. Ratan Singh's descendants hold the villages of Bhari and Saidpur. The pedigree of Ratan Singh's descendants is given below:—



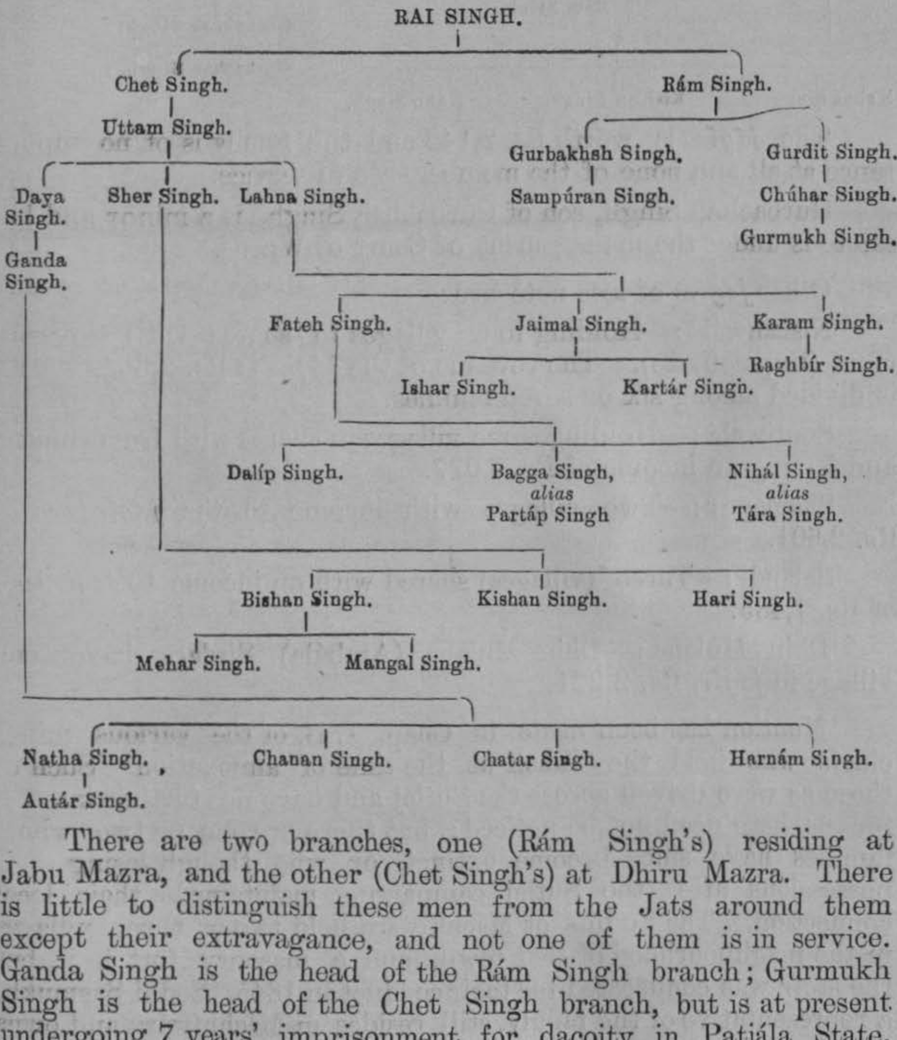
The whole *jágír* is worth Rs. 7,612. Lál Singh is dead and there is no other person of note in the family.

CHAP. I, C.
Population.

Jabu Mazra. *Gordon Walker, S. R.* § 90 (2).

The founders of the Jabu Mazra family were Ráí Singh and Rám Singh, Jats (*got* Kang) from Amritsar. About 1863 they secured 16 villages to the south-west of Khanna, but were exposed to constant attacks from Patiála and the Kapúrthala chiefs, who finally annexed and divided the whole estate. The Sirdárs complained to the Resident at Ambála and eight villages were restored to the family. These they now hold with a revenue of Rs. 10,755.

The pedigree of the family is given below:—



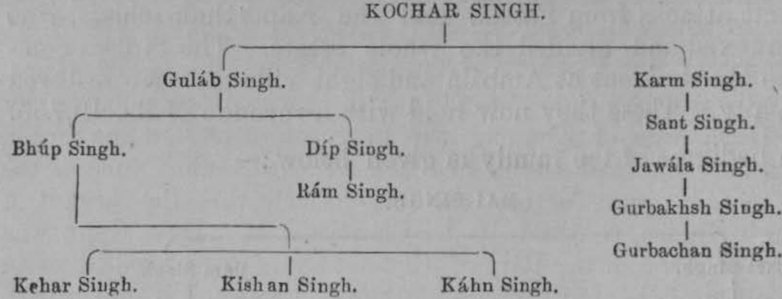
There are two branches, one (Rám Singh's) residing at Jabu Mazra, and the other (Chet Singh's) at Dhiru Mazra. There is little to distinguish these men from the Jats around them except their extravagance, and not one of them is in service. Ganda Singh is the head of the Rám Singh branch; Gurmukh Singh is the head of the Chet Singh branch, but is at present undergoing 7 years' imprisonment for dacoity in Patiála State. He was *jágírdár* of Rs. 2,584-8.

Kotla Ajner. *Gordon Walker, S. R.* § 90 (3).

The Kotla Ajner family have a *jágír* of four villages acquired by the ancestor of the present holder, a Mánjha Jat, subject of the Ahlúwalia chief. The lands came to us by annexation with the other Kapúrthala territory in 1846; and the *jágír* was confirmed to the family, half to be held in perpetuity. The revenue is

CHAP. I, C.
Population.
Kotla Ajner.

Rs. 42,922, half of which is now received by the members of the family. The pedigree is :—



The *jágír* is worth Rs. 2,146 and the family is of no importance at all and none of the members are in service.

Gurbachan Singh, son of Gurbakhsh Singh, is a minor and his estate is under the management of Court of Wards.

Other *jágírs* of less note are :—

Nishánwála :—Holding four villages in shares with Government (Rupalon, &c). The revenue of the *jágír* is Rs. 2,354, which is divided among six or seven families.

Sontiwalá :—Holding three villages in shares with Government and having an income of Rs. 5,077.

Shamspur :—Two villages with income to the *jágírdárs* of Rs. 2,601.

Salaudi : —Three (villages) shared with an income to *jágirdárs* of Rs. 1,485.

Dhin Mulana :—Dhin Mulana (Ambála) Sirdárs have one village in *jágír*, Rs. 2,221.

Extinct or decayed families.
Sodhís of Máchhíwára.

Mention has been made in Chap. I. B. of the various minor chiefs who held the Tahsíl at the time of annexation. Such of these as were driven across the Sutlej and have no further interest for us here need not be noticed; but there are one or two whose families have since become extinct, or who, though losing their possessions after the Sutlej campaign, maintained their local connection. The Sodhís of Máchhíwára held two or three villages in the neighbourhood of that town, and a masonry fort in it, but the *jágír* was confiscated for their conduct in 1845. Sodhi Sarmukh, a representative of the family, still resides in Máchhíwára and owns a little land but has no position.

Kákar family.

There were a good many branches of the Kákar family which came from the Jullundur Doáb. One branch took possession of several villages about Bahlolpur, but was spoiled by Mahárája Ranjít Singh, who, however, restored some of their possessions in *jágír*. For the conduct of the family in the war of 1845 the greater part of the *jágír* was confiscated and the rest lapsed by escheat shortly after. Sirdár Jawála Singh, a member of this family

CHAP. I, C.
Population.
Kákar family.

was a Risáldár. His son Mangal Singh has recently retired as Risáldár-Major of the 3rd Bengal Cavalry. He visited London at the Diamond Jubilee in 1897 and has the title of Sirdár Bahádur. He is a man who will be increasingly useful to District Officers as he is still active and fit for service.

Khanna *jágír*.

There was a large *jágír* held at the time of annexation by Sirdární Dayá Kaur of Khanna, the daughter of Dasaundha Singh, a Majítha Jat, who had established himself at the same time as the other *jágírdárs* from across the Sutlej. He was the servant of Tárá Singh Ghaiha, referred to in Chapter I. B. Dayá Kaur was the widow of a son of the Rája of Jínd and was continued by us in the possession of the *jágír* of her father's villages till her death without issue in 1850, when the *jágír* lapsed. She had a large fort at Khanna. The *jágír* consisted of seventeen villages with a *jama* of Rs. 30,217.

Kheri *jágírs*.

The ancestor of the Kheri Sirdárs, Nand Singh, was a Jat who came from the Mánjha to assist in the capture of Sirhind; and afterwards established his powers over a very fertile piece of country in the south-east corner of the Tahsíl. This was then only partly settled by Muhammadans and others, many of whom deserted their lands; and to Nand Singh is due the founding of most of the villages of the Kheri *iláqa* which is now one of the richest and most highly assessed portion of the District. The family maintained an independent position till they were absorbed by us in 1846. The *jágír* was continued to Sirdár Basant Singh, who was succeeded by his son Harí Singh. The latter died without issue in 1866 and the *jágír* then lapsed. Sirdární Nihál Kaur, widow of Harí Singh, and two other female relatives, Ratan Kaur and Sáhib Kaur, enjoyed considerable cash pensions, and Nihál Kaur had a life interest in the estate of Harí Singh which was very large, consisting of shares in a great many villages, and considerable areas of *bír* land. The Sirdární is a sister of Sirdár Badan Singh of Malaudh.

Sirdární Nihál Kaur who was in receipt of a pension of Rs. 2,500 per annum died on 1st March 1888, when her pension stopped. Mussammát Sáhib Kaur, in receipt of a pension of Rs. 1,500 per annum, died on 15th March 1886, and her pension stopped from that date. Sirdární Ratan Kaur is alive and receives a pension of Rs. 1,800 per annum. On her death the question of reversion of her lands in which she has only a life interest will arise.

Minor *jágírs* of Ludhiána Tahsíl.
Gordon Walker, S. R. § 91.

Besides the Malaudh family, there are one or two others which hold smaller *jágírs* in the Ludhiána Tahsíl.

Khosa *jágírs*.

The Khosa family of Jats belongs really to Bankandi in Ferozepore District. They hold three or four villages with a revenue of Rs. 3,362 in shares with the Malaudh family.

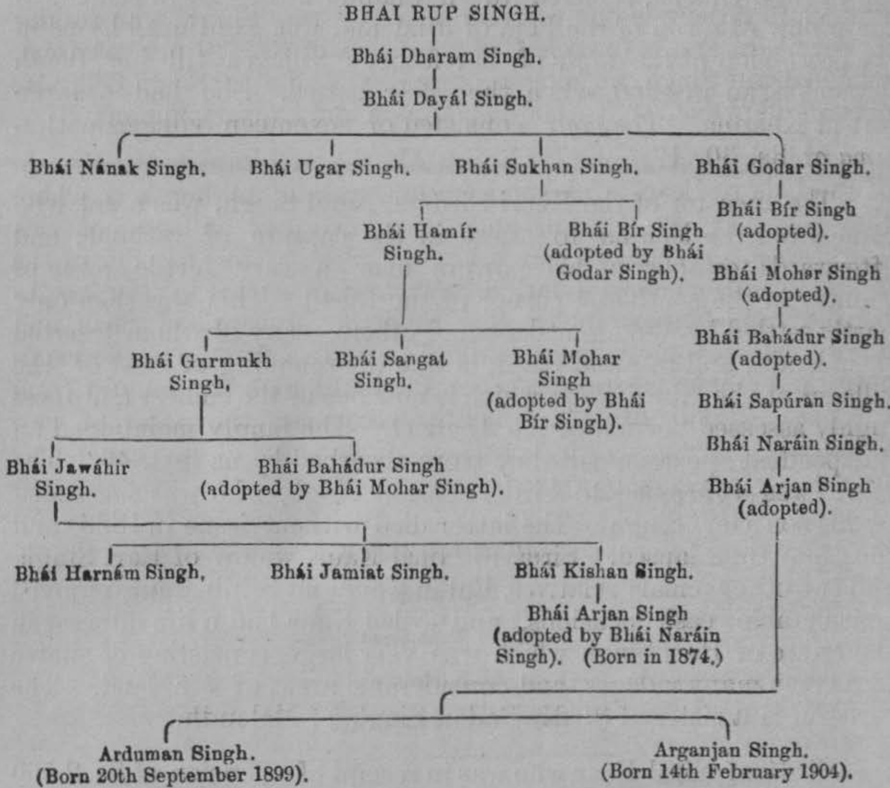
CHAP. I, C.
Population.
Hans.

There are two families of Kalál *jágírdars* at Butáhrí and Hans, who hold the villages given them by the Ahlúwália chief. Their income is Rs. 2,377. Dayál Singh, a leading member of the family, is a person of great local influence and is a zaildár. Some members of the family have received land on the Chenáb Canal.

Bágarián.

A mention of this family will be found on pages 245—250 of Massy's Chiefs and Families of note in the Punjáb.

The pedigree of the family is given below:—



The family has one village (Bágarián) in *jágír* (Rs. 3,800) and three villages (Kalahar, Dewala and Mehlan), aggregating Rs. 2,385 in *muáfi* for the upkeep of a Langar at Bágarián in this District. There are two villages in the Ferozepore District and one in Farídkot State, with an annual income of about Rs. 4,940 assigned for the same purpose. The family owns landed property carrying an annual income of about Rs. 8,000 per annum.

On Bhái Naráin Singh's death his adopted son Bhái Arjan Singh succeeded him, but as he was a minor his estate was put under the management of the Court of Wards and was released on 1st October 1895 on his attaining majority.

He exercises the powers of a Magistrate of the 3rd Class in the village of Bágarián. He was given a seat in the Coronation Darbár at Delhi. He was appointed a Provincial Darbári under

CHAP. I, C.
Population.

Chief Secretary to Punjáb Government's letter No. 277, dated 21st April 1903.

Bágarián.

Bhái Arjan Singh was most liberal, like his forefathers, in feeding the poor in the Famine of 1899, especially Márwárís who were fed at the rate of 400 a day.

Bhai of Arnauli.

Bhái of Arnauli, who has a *jágír* in Ambála, holds one village (revenue Rs. 1,843) in this Tahsíl.

Of the Kákars who held the Ludhiána Bét at the end of the last century there is one representative, Partáp Singh, who resides in Barnihára and is in receipt of a pension of Rs. 30 per mensem, while Basant Singh, an adoptive grandson of Sudha Singh Gill, also gets an allowance of Rs. 500 per annum and lives at Mángat.

Jagraon Tahsíl. The family of Rajab Alí. *Gordon Walker, S. R.* § 92.

The children of Maulví Rajab Alí, the well-known Mír Munshi of the Lahore Board of Administration, reside in Jagráon, where they have very fine houses, and they have two villages of this Tahsíl with a revenue of Rs. 3,179 in *jágír*. The founder of the family was Muhammad Jafar, a Sayyid, who settled in the neighbourhood of Jagráon under the Emperor Muhammad Sháh, and got a grant of some villages round Talwandí Kalán. His descendants lost their possessions when the Sikhs took the country from the Ráis. Rajab Alí subsequently recovered the *jágír* of two villages.

The pedigree is :—

- MUHAMMAD JAFAR.
  - Faqír-ullah.
    - Sultán Muhammad.
      - Alí Bakhsh.
        - Maulví Sayyid Rajab Alí.
          - Sharíf Hassan.
            - Abbás Hussain.
              - Ahmad. (Born 1884).
              - Sharíf Alí. (Born 1892).
            - Ali Akbar.
            - Muhammad Mohsan.
          - Sharíf Hussain.
            - Mustafa Hassan.
              - Sharíf Muhammad. (Born 1890).
              - Abu Taráb. (Born 1893).
              - Zain-ul-Abdín. (Born 1896).
            - Murtaza Hassan.

The tomb of Faqír Ullah still stands in Talwandi Abbás Hussain is Náib Tahsildár in the Punjáb. Ali Akbar was zaildár of the Jagráon *zail* but has recently been dismissed for incapacity. Sharíf Hussain is a respectable old gentleman and his son Mustafá Hassan is unobjectionable, but the family is going down hill fast.

CHAP. I, C.
Population.

Other petty *jágírs.*

There are Sodhí families in Mallah, Bhamipura and elsewhere, holding petty *jágírs* which are gradually lapsing; and Jat families in Rajoana and Tughal; but these do not deserve mention.

The Ráis of Ráikot.
Gordon Walker, S. R. §93.

The Ráis of Ráikot played such an important part in the history of this District that it will be well to give some of the details connected with the family. They belong to the Mauj *got* or subdivision of the Rájpút tribe; and the ancestor of the Ráis, Rána Mokal, is said to have come from Bhatner (or Jesalmír) and to have settled in what is now Farídkot territory. Fourth in descendant from him was Tulsí Dás, who became Muhammadan in the reign of the Emperor Ghiás-ud-dín Ghori, the family chronicle says, that is about the middle of the 12th century (the same period as that to which the Ghorewáhá Rájpúts of the east, ascribe their arrival in the part of the country now held by them), and was called Sheikh Cháchú. His sons Bháru and Lapál came to Hatur, a large village in the Jagráon Tahsíl, where they appear to have lived by plunder under the shade of an importunate Panwár Rájpút, called Udho, the circumstance being recorded in the popular tradition "Kháun piun Bháru Rái; Pakará jáná Udho Panwár," which means that Bháru got the plunder, and Udho the blows. Finally Bháru made himself master of Hatur, while Lapál settled in the adjoining village of Sháhjehánpur, which his descendants still hold. Seventh in descent from Bháru was Kalha I, who took service with a Delhi Emperor called Ala-ud-Din, perhaps the last of the Sayyid Dynasty, at all events in the beginning of the 15th century. Kalha founded Talwandí, to which place the family moved; and obtained an assignment of the *málguzárí* of villages in the neighbourhood, for which he had to pay Rs. 1,25,000 of revenue, and also the title of Rái. The family maintained its position as a feudatory of the empire (*zamíndár* or *mustájir*) under the Lodís and Moghuls for several generations, and one of the Ráis is said by the family chronicle to have been put to death for refusing a daughter in marriage to the Emperor Akbar. On the decline of the Mughal empire from the beginning of the 18th century the Ráis became involved in disputes with the Governor of Sirhind, and Rái Kalha III, who appears to have been a ruler of very great ability, extended his power up to Ludhiána, which passed into his hands a few years before the capture of Sirhind by the Sikhs in the manner described in Chapter I. B. After that event he established independent power over the whole of the Jagráon (the place of the Ráis) and the greater part of Ludhiána Tahsíls, and also a large portion of the Ferozepore District. The family was on at least equal terms with the Pathán rulers of Maler Kotla and the Phulkián chiefs, with the latter of whom their relations were friendly on the whole. It was in the time of Rái Ahmad, successor of Kalha III, that Ráikot was built; and many other towns and villages, amongst them Jagráon, owe their origin to the family, whose rule appears to have been very mild. Rái Kalha III was the ablest of the Ráis; and under

The Ráis of Ráikot.

Gordon Walker, S. R. § 93.

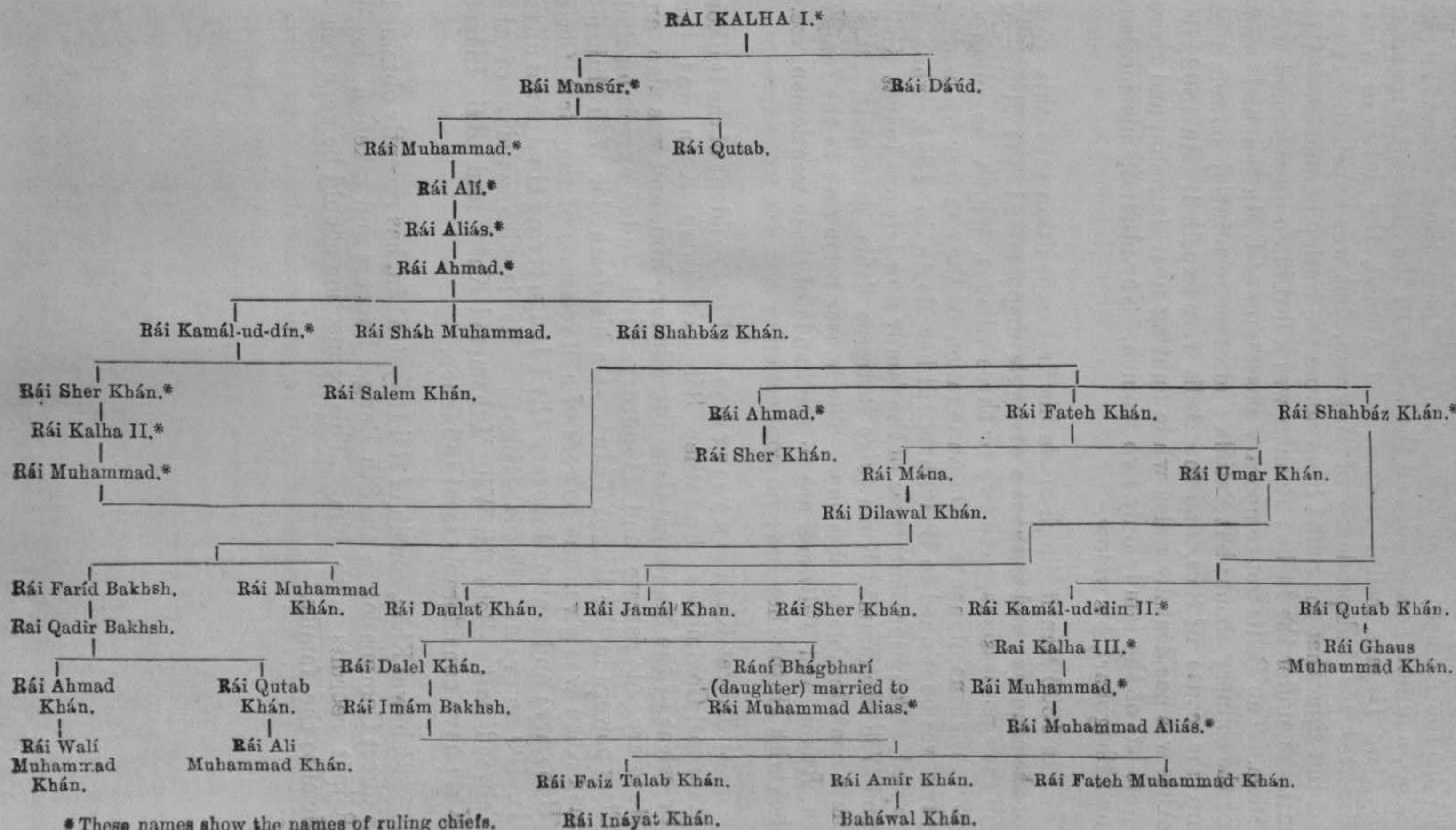
him the family reached the height of its power. He was followed by his son Ahmad, who ruled only a short time. In 1779 Rái Alias, a minor, succeeded, and the affairs of the State were managed by two Gújars, called Roshan and Ahmad, the latter of whom asserted his independence of Jagráon, but was expelled. It was at this time that the Sikhs from across the Sutlej commenced their attacks under the Bedís; Roshan was killed in an engagement with them. The Bedís got temporary possession of Ludhiána and some of the country about; but Patiála and other cis-Sutlej powers took up the cause of Ráis, and the Bedís were expelled. In 1802, Rái Alias was accidentally killed while hunting near Jagráon, and there were left of the family only two women, Núr-ul-Nisá, his mother, and Bhágbharí, his widow.

In 1806 Ranjít Singh made his first expedition into this part of the country; and without a struggle dispossessed the Ránís of all their possessions, save two or three villages, which he allowed for their maintenance. On annexation of the country by us, this *jágír* was continued to Bhágbharí till her death in 1854, when it lapsed. The representatives of the family now left are Ináyat Khán and Wálí Muhammad Khán (*vide* Pedigree Table attached). Both have considerable possessions. The houses belonging to the family in Ráikot and Talwandi are in the hands of these gentlemen, &c., but with Hatur they have no connection.

Rái Ináyat Khan is a young man and is President of the Ráikot Municipal Committee; his father Rái Faiz Talab Khán was the President of the Municipal Committee before him, and was also an Honorary Magistrate and Honorary Civil Judge exercising 2nd Class powers in the Ráikot Thána. On his death Rái Wáli Muhammad Khan was given the powers of a Magistrate of the 3rd Class (Honorary) and is also Honorary Civil Judge trying Civil cases up to Rs. 100 in value (Thána Ráikot). He is also zaildár of the Talwandí *zail*. Both Rái Wáli Muhammad Khán and Rái Ináyat Khán have considerable local influence.

Baháwal Khán, cousin of Rái Ináyat Khán, has recently obtained a direct Commission in the 8th Bengal Lancers and taken a dozen Rájpút recruits with him. This connection should be very beneficial to the family.

CHAP. I, C.
Population.
The Ráis of Ráikot
Gordon Walker, S. R. § 93.



* These names show the names of ruling chiefs.

CHAP. I. C.
Population.

Refugees in Ludhiána. Family of Sháh Shujá, &c.

Some mention should be made of the Political refugees and pensioners who followed us from Afghánistán in 1842 and had Ludhiána assigned to them as a place of residence. The family of Sháh Shujá-ul-Mulk have resided here since our withdrawal from Kábul in 1842.

Sháhzáda Muhammad Towáhir is the leading representative of the family at Ludhiána. Sháhzáda Hamdam, son of Sháhzáda Nádir is a Tahsíldár, and Wála Gauhar, a District Judge in the Punjáb. Many of the descendants of the original refugees who have intermarried excessively are of miserable physique and few now are capable of earning their own living.

Jhajjar Nawáb's family.

This family after the execution of Nawáb Abdul Rahmán Khán was sent here after the Mutiny and have since resided here. None of the family is remarkable in any way.

Family of Sáleh Muhammad Khán.

Sáleh Muhammad Khán came with us from Kábul in 1842, and was in receipt of Rs. 1,000 per mensem. His son Yár Muhammad Khán succeeded to Rs. 500. There are only women left in the family who receive Rs. 120 a month. Muhammad Hassan Khán (Kábul pensioner) distinguished himself in the Mutiny. He had a pension of Rs. 800, and his family has now a pension of Rs. 200.

Muhammad Hassan Khán

Aghá Hasan Ján.

The well-known Mohan Lál (Aghá Sáhib) Hindú, Christian and Muhammadan lived for many years here and has left some descendants of various religions.

RELIGION.

Distribution by religions. *Table 16 of Part B.*

The distribution of every 10,000 of the population by religions as ascertained at the enumerations of 1901 and 1881 is given in the margin. The increase of Sikhs, and, to a less extent, of Muhammadans at the expense of Hindús in 1901 was most marked. There were 415 Native Christians in 1901 as compared with 179 in 1881.

DISTRIBUTION BY RELIGION.

Religion.	Total.		Urban.		Rural.	
	1901.	1881.	1901.	1881.	1901.	1881.
Hindús	3,998	4,448	3,334	3,305	4,096	4,618
Sikhs	2,450	2,055	356	460	2,761	2,292
Jains	33	35	195	182	9	13
Muhammadans	3,505	3,457	6,069	6,013	3,125	3,077

The distribution of every 1,000 of the Muhammadan population over 15 years of age by sect is shown in the margin.

Sect.	1901.	1881.
Sunnís	983	991
Shiáhs	11	8
Others and unspecified	6	1

CHAP. I, C.
Population.
Gordon Walker, S. R. § 58.

The agricultural population of the eastern part of the uplands is strong in the Hindu and weak in the Sikh element. Religion follows very closely the main division of the Jats, which is sketched above (page 53), and Sikhism has laid hold on those of the western parts and of the Jangal, while to the east the people are mostly Hindu.

Hindús and Sikhs in the agricultural population.

The Hindu population of the Jagráon Tahsíl is made up of the mercantile, trading and miscellaneous classes inhabiting the towns and following their occupations in the villages; and it may be said that the Jat population is entirely Sikh, the total of the Jat population in the Tahsíl being about a quarter of that in the whole District. On the other hand, the proportion of Sikhs is very small in Samrála; and in the Ludhiána Tahsíl, to the east of the Máler Kotla road, most of the Jats are Hindús, while to the west of it and towards the Jangal they are all Sikhs. From what has been said above of the two types of Jat it will be seen that the adoption of one religion or the other depends in some degree on the mental qualities of the people, which again are the result of locality; but the real cause of the spread of the Sikh religion in the western parts is that this tract was always beyond the power of the Muhammadan emperors, while in the villages round Sirhind it was easy to check it. The Jat of the east has little time for any religion, and we might expect the form adopted by him to be of a lower order, and more involved in superstition. He keeps his ancestors' religion as he does their system of cultivation; and wants no change, having few ideas beyond his fields. Accordingly there are few fairs, of any note, in Tahsíl Samrála. On the other hand the Jat of the west is independent in his religion as in everything else; and Sikhism is just the sort of faith that would commend itself to his mind.

Muhammadans.

The Muhammadan portion of the agricultural population is confined to the Bét and the country just over it, which they hold to the almost total exclusion of Hindús. They have also villages scattered over the uplands; and the Muhammadan element is very strong in the town of Ludhiána.

Sultánís.
Gordon Walker, S. R. § 59.

It is not necessary to enter into a detailed account of the various Hindu sects, but some mention may be made of the Sultánís, who make up the greater part of the Hindu Jat population. These are the followers of the Muhammadan saint, Sakhi Sarwar Sultán, whose tomb is at Nigáha, in the Dera Gházi Khan District. Mr. Ibbetson gives his date as of the 12th century. No one has yet been able to find out how and when the worship of the saint spread through this District; but it is said that the Jats brought it with them, and they may well have done so in the case of all immigrations within the last 300 or 400 years. It is probable that the belief spread eastwards in the 15th and 16th centuries, and that at the time of Gurú Govind Singh most of the Jats held it, the conversions to Sikhism being from it. The Sultánís are nominally ordinary Hindús, worshippers of Shiv or of Dévi; but it is charac-

CHAP. I, C. Population. Sultánís.

teristic of popular Hinduism that the saint and his shrine, being something more tangible than the deity, have entirely excluded the latter, and that the saint should have been a Muhammadan. They are, as might be expected, very lax Hindús. An account of the Bharáís, or guardians of the village shrines of Sultán (*pírkhánd*) has been given under Castes (page 54). These *pírkhánás* have always the same shape—a square base with four small domes at the corners, and in the centre a small temple 10 or 12 feet high. There is a door in front of the shrine; and, facing this, two or three niches for lamps. Otherwise it is empty, there being nothing to represent the saint. The Thursday offerings at the shrine are not universal, and are generally made by the women. The Bharáí attends all that day. It is very common for a person wishing to attain some object (*e.g.*, to succeed in a law suit) to make a vow to the shrine; and offerings in this way also go to the Bharáí. Once a year, on a Friday, the ceremony of *rót* is performed in most Sultáni families. A huge loaf is made of one maund (*kachcha*) flour and half a maund (*kachcha*) of *gur*, and cooked. The Bharáí attends and beats the drum, and sings the praises of the saint while this is preparing; and receives one-quarter of the bread, the other three-quarters being eaten by the family and the neighbours. This is the great observance of the Sultánís, and they really appear to have no others.

One of the few fairs in Samrála Tahsíl is that at Bhádla, which possesses a *khángáh* of Sakhi Sarwar. Here a fair is held on the 1st Thursday of the bright half of Jeth. A *rót* is cooked and distributed. Inside the *khángáh* is a cenotaph of Sakhi Sarwar. Its management is in the hands of the Kumhárs and Bharáís of Bhádla in equal shares.

Sikhs. *Gordon Walker, S. R.* § 60.

The Ludhiána District and adjoining cis-Sutlej territories figure largely in the annals of Sikhism.(1) Gurú Nának and his successors made many converts in this tract; but it is more famous as the scene of the wanderings and persecution of the great Gurú Govind Singh; and it was here principally that the religion took its militant form from contact with the Muhammadans. Sirhind, the head-quarters of the Mughal power in these parts, is only a few miles east of the Samrála border. It was against this town that the earliest efforts of the Sikhs were directed; and it was here that after the dispersion of the Gurú's followers by the lieutenant of Aurangzeb, the wife and children of Govind Singh were murdered —a deed that has made the town accursed to all his followers. It is in this District, too, that the latest development of Sikhism has had its origin under Rám Singh, Kúka. The two religions of the Jats, *i.e.*, the worship (for such it is) of Sultán, and Sikhism, do not really differ very much from each other in practice. The ordinary Sikh of the District is a Hindu who reverences the Gurús and their Scriptures, and in token of this has taken the baptism

(1) See Gazetteer of Jullundur District.

CHAP. I, C. Population. Sikhs.

(*pahul*), and adopts at least some of the signs enjoined by Gurú Govind Singh. The Sultáni is a Hindu who has inherited the worship of Sultán; but the more intelligent of them see the absurdity of this, and really believe in the Gurús as much as the Sikhs do. Sultánís are constantly taking the *pahul* or baptism, and the conversion makes almost no difference to them, except that they have to give up smoking. A Sultáni Jat will often say that he did not become a Sikh because his father was not one, and it was not the custom of his family to take the *pahul*, but that his sons would be Sikhs; and he had really no better reason for his own form of religion, which he admitted to be foolish. Such a distinction as the manner in which sheep and goats ought to be killed for food is not likely to affect a people who never touch flesh, and really consider it a sin to kill any animal. The Málwa Sikh of the present day admits the Hindu gods, and follows the Bráhmans in everything. He is very unorthodox on most points, but has taken the *pahul* generally from the hands of some holy man who has visited his village, less often at Amritsar. After this he adds 'Singh' to his name, if he has not taken it in anticipation, must renounce smoking, and keeps three out of the five 'k's' enjoined by Guru Govind Singh, *viz.*, the *kês* or long hair, the *kanga* or wooden comb, and the *kach* or drawers. There is nothing approaching to bigotry in the disposition of the Sikh Jat; and so much of his faith as is not made of these few external observances, which are after all more of a social than of a religious character, is the religion of humanity preached by the earlier Gurús. A Sultáni will generally call himself a Sikh, and does not seem to recognize much difference between himself and the Gurú Sikh, except that the latter cannot enjoy his pipe. Sultán is attended to once in the year; and even this is a mere matter of custom. The Sultáni will say that he reveres the Sikh Gurús; and no wonder, for the moral precepts of the *Granth* might belong to the purest form of religion. The real religion of both Sikh and Sultáni is a belief in one God, and in every-day life there is blind obedience to the Bráhman.

Kúkas. *Gordon Walker, S. R.* § 61.

The most important of the recent revivals in Sikhism is that of the Kúkas, which is a protest against the present laxity, and an attempt to restore the political religion of Gurú Govind Singh in its purity. "This sect was founded about 50 years ago by an Udási faqír, an Arora by caste, called Bálak Singh, who lived at Hazro in the Attock District. His followers were called Sagiásis or Habiásis; after his death in 1863 the movement died away in the western Punjab, but it was energetically stimulated in the central and eastern Districts by his successor, Rám Singh, a carpenter of Bhaini in the District of Ludhiána. The tenets of the sect proclaimed Govind Singh as the only true Gurú, who prohibited all worship save the reading of his 'Granth' and all employment of Bráhmans, and in many ways revived the original doctrines of the

Sikh faith. They included the abolition of caste and of restrictions upon intermarriage, abstinence from meat, liquor and drugs, and comparatively free intercourse between the sexes. The sectaries carried staves about in their hand, tied their turbans in a peculiar fashion (*sídhapág*), wore a necklace of woollen cord tied in knots, and had a watchword known only to themselves. Rám Singh presently declared himself to be an incarnation of Gurú Govind Singh, and preached the revival of the Khálsa and the overthrow of the English Government. His followers used to meet by night for the purpose of drill, while, as usual in such cases, a good deal of religious hysteria was excited, and ended in much sexual license. The attention of Government was attracted to these proceedings as early as 1863, and shortly after this date the sect began to be known as Kúkas, or 'shouters,' a name which has now superseded their original designation. For several years these people did nothing worse than defile or destroy shrines and idols, and murder butchers and others whom they suspected of slaughtering kine; but as early as 1869 there was a small Kúka outbreak in Ferozepore which seems to have had a political object; and in January 1872 the Kúka rising in Máler Kotla took place, which ended in fifty of the ringleaders being blown away from guns, some thirty more being executed, and Rám Singh being deported. The sect cannot be said ever to have attained any general popularity; its followers have throughout been drawn almost exclusively from the lowest classes, their attacks upon sacred places have outraged the feelings of their neighbours, while the pure morality which they at first preached has been superseded by the most unbridled license under the name of religious enthusiasm, men and women dancing naked together and indulging in orgies which have alienated the sympathies of the more decent portion of the community." The above account of the Kúkas is taken bodily from Mr. Ibbetson's Census Report. To it the following particulars may be added: Rám Singh was born in Bhaini Ala, 14 miles east of Ludhiána, about the year 1820, the son of Jassa, a carpenter. He was at one time in service in the Khálsa army at Lahore; and, on giving this up established a shop at Ludhiána. This failed, and he worked as a carpenter in his own village and at Ludhiána. Then he took to wandering about the country plying his trade; and finally became the disciple of Bálak Singh in Hazro. When he had established some reputation, he settled down at Bhaini between 1850 and 1860, and thence disseminated his doctrines. The sect increased rapidly, and followers came from all parts never empty handed. He was soon able to set up a large *déra;* and at the time of his arrest in 1872 used to go about followed by a large retinue and in great state. It is very doubtful whether it can be said that even the majority of the Kúkas are drawn from the lowest classes, for the sect has made much more progress amongst the Jat Sikhs than any returns would show. The excesses committed by a small body of fanatics in 1872 were probably disapproved of by the sect at large. The principal

CHAP. I. C. Population. Kúkas.

outward signs of the faith are the straight *pagri* and the woollen cord (*máhla*); but since the outbreak of 1872 (of which an account will be found elsewhere) the first of these is not worn by many Kúkas; and the cord is kept under the clothes instead of outside, as it ought to be. A dispensation from the *déra* (where Budh Singh, brother of Rám Singh, resides) is easily obtained; and it is evidently the intention of the sect to give up all the outward marks of their faith so long as they are persecuted. A Kúka would call himself a Sikh unless he were well known to be a Kúka; and probably only a very small proportion of the followers of Rám Singh have been returned as more than Sikhs, which of course they are. The truth is that it is not possible for a Kúka to be a loyal subject of the British Government, as the avowed object of Gurú Govind Singh, whose incarnation Rám Singh professes to be, was a temporal kingdom; and the establishment of this under Rám Singh is the first element in the faith of the sect. It is not to be expected then that any man, unless he were prepared to break with society and give his enemies a constant hold on him, would admit that he belonged to the sect; and most Kúkas would at the present time, even if asked the question directly, deny their faith.

Muhammadans: character of their religion. *Gordon Walker, S. R.* § 62.

The Muhammadans of the District are almost all Sunnís, 99 per cent. of them being so returned. No account need be given here of the tenets of the three sects. The Jats, Rájpúts, Gújars, Aráíns, Dogars are all converted Muhammadans; and their conversion was probably forcible, so that we should not expect them to be very strict, or their religion to be more than skin-deep. They say their prayers when they have time; and generally keep the fast of Ramzán. The Muhammadan Rájpúts are probably the most foolish in their religion, and most superstitious of all tribes in the District; and will believe in anything. The Awáns came to the country as Muhammadans, and are strong in their religion, most villages turning out several Maulvís learned in the law. They are, like the other Muhammadan tribes, guided by custom on questions relating to land; but, after the Settlement Officer had attested their tribal code in 1882, a very strong representation was made to him to the effect that, although customs contrary to the Muhammadan law had established themselves, the tribe now wished to enter into an agreement for the future strictly to abide by the latter.

Pilgrimages and religious fairs frequented by the people Sakhi Sarwa. *Gordon Walker, S. R.* § 63.

Mention has been made of the shrine of Sakhi Sarwar in Dera Gházi Khan. This is a very favourite place of pilgrimage for people of both the Hindu and Muhammadan religions, but principally for the Sultáni Hindús. Bodies of pilgrims start from the District in charge of the Bharáís in the month of Phágan (March), and return in Chét (April), the journey taking about six weeks is performed on foot, as it generally is. Offerings are made at the shrine, of money, clothes, &c., without any special ceremonies; and three or four days are spent there. A *rót* is often made (see page 83 *ante*). It is said that leprosy used to be cured by a visit to this

CHAP. I, C. Population.

shrine; but generally a man gets whatever he wishes by making the pilgrimage, or goes on it to fulfil a vow.

Temple of Devi at Jawálamukhi.

Hindús of all tribes go from this District to the temple of Dévi at Jawálamukhi in Kángra. They are accompanied by their families, while, as a rule, men only go to Sakhi Sarwar. There are four seasons appointed in the year for this pilgrimage, the principal ones being in March and September. Offerings are made at the shrine, and the hair of the children cut off and left there. Some also go to Naina Dévi; and the Sikhs reverence this shrine because Gurú Govind Singh spent some time at it. The road to Jawálamukhi lies through Hoshiárpur, and that to Naina Dévi through Ráhon or Rúpar.

Hardwár and Amritsar.

Hindús also go from this, as from other Districts, to the Hardwár fair, especially for the *Kumbh*, which comes every 12 years; and the Sikhs to the *Harmandar Ji* or temple at Amritsar, for the Baisákhi and Diwáli fairs, but not in any great numbers, and more probably with a view to purchase of cattle than of worship.

Kulchetar Pihewa, Phalgu.

The next three places of pilgrimage to be mentioned lie in the Ambála District near Thánesar, within what is said to be the circle where the last great battle between the Kaurus and Pándus was fought. Kulchetar ("Kurukshetra"—Cunningham) is close to Thánesar town; and, when there is an eclipse of the sun, crowds of pilgrims go there and bathe, the day having been duly notified by the Bráhmans. Pihewa is 12 or 14 miles further on; and a great fair is held there on the last day of the Hindu year (Chet Chaudas), when the people bathe in the Sarusti stream, which runs close at hand. Besides this, when any one dies an unnatural death—by snake-bite, by accident, &c., in fact in any other than the orthodox way of being put on the ground—the funeral obsequies have to be performed by the Bráhmans of Pihewa, to whom presents are made. When the last day of the *sarád* or *kanágat* (the period of 15 days during which a Hindu worships his deceased ancestors) falls on a Monday, a religious fair is held at Phalgu in the Kárnal District where there is a tank in which the pilgrims bathe. There is a constant stream of pilgrims to Pihewa, for a Hindu or Sikh *must* go there if the person whose obsequies he is bound to perform has died an unnatural death. All the Hindús and Sikhs of the District alike go to these three fairs, crowds of them to the eclipse fair at Kulchetar.

There is shrine of Sain Bhagat at Partabgarh which is frequented by the Nais of the adjoining villages. Sain Bhagat is held in great reverence by Nais.

Muhammadan pilgrimages.

A few Muhammadans go to the fair of the saint Pír Banoi held at Sunám in Patiála; one in 10,000 goes to Mecca; a great many go to Sakhi Sarwar, but the pilgrimage is essentially a Hindu institution.

Fairs in the District: Chet Chaudas.

The Chet Chaudas fair of the Hindús is held at four places in the District—Ludhiána, Máchhiwárá, Badowál and Sidhwán. The

CHAP. I, C. Population.

first three of these are over the Budha Nála, and the fourth close to the river. Hindús come, bathe, walk about, and then go quietly home. Some 30,000 from the villages come to Ludhiána, and about 10,000 to Máchhiwárá.

Roshani Fair.

The Roshani Fair is held at the shrine of the saint Pír Abdul Qádir Jaláni (called generally "Pír Sáhib") which lies in the open space between the Fort and town of Ludhiána. This is a Muhammadan fair; but the Hindús of the town join in it. It is held on the 9th—11th of the Muhammadan month of Rabiussáni (called Miranji); and thus falls on a different date every year. Muhammadans come from all the villages round, make offerings, and pay their respects to the shrine. There is a peculiar custom of bringing cattle and keeping them tied up at the shrine all night for good luck, this being called *chauki*, *i.e.*, the cow or buffalo 'watches' at the shrine. The fair is attended by 40,000 to 50,000 people from the villages; and the offerings, which are taken by a family of Súfis, amount to Rs. 300 or 400. The name 'Roshani' is derived apparently from the tomb being illuminated at night during the fair. A better account is that the shrine is that of Sayyid Muhammad, a *khalífá* of Hazrat Hujat-ul-Aulia, Shaikh Dáúd Gangú, who was, according to the Hadiqa Dáúdi, a contemporary of the emperor Alamgír and the founder of the Súfi dynasty (*sic*) of Ludhiána. His descendants became managers of the shrine and Sayyid Muhammad Ali Sháh is its present incumbent. A *muáfi* of some 160 acres in Jassiar is assigned for its maintenance.

A secondary fair is held (on the same day as the Roshani) at Raipur, in honour of Pír Daulat Sháh, whose disciples assemble there.

Bhaiwálá Fair.

The Bhaiwálá (Bhaibálá) Fair is held on a piece of waste land of Dád, a village close to Ludhiána. It falls on the 10th Sudi of Mágh in January-February; and is in honour of a disciple of Gurú Nának called Bála. There is a *samádh* and also a tank; and Hindús make offerings of money, grain, &c., which are taken by the *masands* or guardians (Khatri Sikhs of Kudháni, in Patiála). The people also make curds overnight and take them to the fair, where they eat or distribute them after presentation to the shrine; and it is the duty of every one to scoop out seven handfuls of earth, originally no doubt with a view of increasing the size of the tank. The fair lasts one day, and some 10,000 people attend it.

The Sudlakhan or Chhappár Fair.

The Sudlakhan Fair at Chhappár in Ludhiána Tahsíl on the southern border of the District, is also an important one. It is held on the Anant Chaudas or 14th of the bright half of Bhádon (September) in honour of Gúga;[1] and there is a large shrine, or *mári*,[2] in his honour. The local account generally given of Gúga is that he was a snake, and changed his form to that of a man in order to

[1] For an account of Gúga, see Cunningham's Arch. Survey XIV, pp. 79—86.
[2] Said to be from Persian *már*, a snake.

CHAP. I, C.
Population.

The Sudlakhan or Chhappár Fair.

marry a princess.[1] Afterwards he returned to his original shape; but in the meantime acquired a great kingdom and won renown, which has come down to the present time. The *dhádís*, or itinerant minstrels, make up stories about Gúga as they go; and it is impossible to say what he was originally. The fair is a Hindu one, but Muhammadans also attend; and some 50,000 people assemble. The cash and grain offerings made at the shrine are taken by the resident Bráhmans, which amount to some Rs. 300 a year. Offerings of eatables are taken by the Mirásis if offered by Muhammadans and by the Chúhras and Chamárs if offered by Hindús. As at the Bhaiwálá Fair, the people scoop out earth from a pond near the *mári* seven times. Cattle also brought to be blessed as in the Roshani Fair. This is supposed to protect them from snakes. They are also kept for a night (*chuski bharwána*) at the shrine. The shrine is reputed to have the power of curing snake-bite, and it is said that a person bitten will recover if put beside it. Perhaps this reputation is due to the traditions about Gúga, in all of which there is something about snakes. The shrine is said to date from 1890 Vikrami.

Gúga has an interesting *mári* at Raikot, where his twin cousins, sons of his maternal aunt, are worshipped on the Anant Chaudas or last day but one of Bhádon. North of the town is a small tank called the Rattowáná. Here a mound of earth has from the earliest times been made for Gúga's propitiation, because close by is a large grove of *karír* bushes, the haunt of snakes. In 1841 V. was a year of portents. A snake took up a position on the mound and for two days the Chet Chaudas and *puranmáshi* refused to move. Huge offerings were made to it. A Khatri girl was possessed by Gúga, and declared that he wished a *mári* to be built to him there. At the same time a Khatri recovered from fever in response to a vow and accordingly built the *mári*, which has since fallen down, only a platform, a well and the serpent's hole (*virmi*) remaining. As many as 50,000 people used to frequent the fair, but Chhappár has supplanted it in popular favour and people only visit it on their way back from the fair there. The *pujáris* are Kale Bráhmans, once priests of the Ráis of Ráikot. Small fairs in honour of Gúga are also held at various places on the *naumí* (9th) of the dark half of Bhádon, or, in some places, on the 9th of the bright half.

In the Agwár Gujarán of Jagráon town is the shrine of Mohkam-ud-Din, a Rájpút of the Ambala District who appears

(1) The local legend avers that once a *zamindár* of Maherna stole a plough but lost his way and was caught next day. As soon as the plough was taken from him he received his power of seeing and as this theft occurred near a serpent's hole in Chhappár, Ganga Rám, a Bráhman of that village, swept, plastered and worshipped the *virmi*. His son Sahib Rám built the shrine with some other Bráhmans, and the offerings are divided into 5 shares thus:—

Ganga Ram's descendants 2 shares.	Mahla's Gahla's Ghulla's Dahari's	Descendants, 1 share each.

CHAP. I, C. Population. The Sudlakhan or Chhappár Fair.

from an inscription in the shrine to have died in 1913 (V. 14th Phágan). Up to 1940 V. the fair only lasted one day, but since then it has been held for three days and nights, beginning on 14th Phágan.

An interesting tribal shrine is the Lachhman *mári* at Pabián in Tahsíl Jagráon. The fair is held on the day after the Chet Chaudas. The Mallhi Jats thus describe its origin :—

The Mallhis have a large fair on the same date Chirk (the out-lying Sub-Tahsíl of Kalsia State in Ferozepore) and the Mallhis of Pabián claimed a share in the offerings made there, but the Mallhis of Chirk rejected their claim and so, about 300 years ago, the Pabián Mallhis sent their Mirási, Sháman by name, to purloin two bricks and two lamps from the Chirk *mári*. Sháman succeeded and with those bricks the *mári* at Pabián was founded in the time of Rái Qarár of Talwandi. The *mári* is a large dome of masonry, 22 feet square and 43 feet high with two storeys. It contains no image, only a platform of 10 bricks, 4′ 9″ long by 3′ 8″ wide. Round the *mári* lie some hundreds of *bíghas* of waste land, the wood grown on which is not used by any one for his own purposes. A Hindi inscription of 1910 V. records the repair of the *mári*. All the offerings are taken by the Mallhi Jats. The village people visit it every Thursday and distribute sugar for vows fulfilled. At the fair people from a distance make offerings in return for prayers granted. Cattle are also cured by a night's vigil at the shrine. Inside the enclosure is a smaller dome, called the temple of Bhairon who was devotedly attached to Lachhman.

Bábá Manohar has a shrine at Hedon in Samrála Tahsíl where a fair is held on the 8th of Asauj in honour of Durga. The building is said to have been erected by Bábá Manohar.

Jángpur Fair.

The only other fair worthy of mention is that held at the tomb of Bure Sháh, or *Makiphan*, a Hosain Sháhi *faqír* of Talwára, who was born at Uch in Baháwalpur. It is held at Jángpur (Jagráon Tahsíl) in September (on the night between Asauj and Kartik) when the maize is ripening, to commemorate the anniversary of the saint's demise. It is a Muhammadan fair really ; and Muhammadan *faqírs* collect from all parts, but Hindu Jats also come in great numbers. Mián Bure Sháh was reverenced for his sanctity and spiritual power by all castes and on his death in 1841 Vikrami, a shrine was erected in his honour. The present building was built about 100 years later by the Ráis of Talwandi. It also contains the tomb of Bibi Khushhálo, a Bráhmani disciple of the Mián. Altogether some 10,000 attend. The fair is held at night, and the people light about 50 lamps at the shrine and make small offerings, which are distributed amongst the *faqírs*. Cattle are also brought to the shrine for a night's vigil. The present *mujáwir*, Sáin Nawázish Ali, is also a Husain sháhi and has a good reputation.

CHAP. I, C.

Population.

Bibarián,

At Shahna, in the south of the Jangal tract, a petty fair called Bibarián is celebrated twice a year, on the first Sunday in the *naurátras* of Asauj and Chet. People assemble at an ordinary *mandar* in the village.

Religious and charitable institutions.

Dharmsálas and *langars* or alms-houses.

A great feature in the Jat villages of the uplands is the *dharmsála*, an institution partly religious, partly charitable, in charge of an ascetic or *sádh* of the Udási or of some other order. This is endowed with a grant of land, either out of the village common, or from some private individual. It is the duty of the *sádh* to spend all that he gets from the land or by begging in feeding the poor, keeping the *langar* or alms-house going. Where, as in most cases, the occupant is an Udási, he or one of his disciples (*chela*) also reads the *Granth* or Sikh scriptures. In the larger institutions of this sort the *sádh* and his *chelás* make up a college, the former being called the *Gurú* or father of the *chelás* and the *mahant* of the institution. The *chelás* collect money and sometimes set up in other villages similar institutions, affiliated to the original one. In former times the reputation of these *dharmsálas* was very great, and few villages were without one; but their treatment in our times has resulted in the closing of most of the old ones. The grants of land were of course intended for the support of the institution; and under Sikh rule if a *sádh* misbehaved he was at once turned out. But at the Regular Settlement the incumbent was in every case returned as owner of the land, which was at the same time exempted from revenue for the period of settlement. The result of this has been that the *sádh* has in most cases taken a wife, closed the *dharmsála* to the public and he or his children are now mere landed proprietors, with a very comfortable house built at the public expense. In some cases the *sádh* has not actually married, but taken to evil courses; and the people are powerless to prevent his misappropriating the receipt. Mr. Gordon Walker quoted instances in which a *dharmsála* of great repute has thus been ruined by a profligate *sádh* who retained the land and house; and the villagers have actually had to create another endowment and build a new *dharmsála*. There was a very famous alms-house at Jassowál with endowments which amounted to several hundred acres, most of them unfortunately held revenue-free in perpetuity; and this has now fallen into the hands of a worthless character, and is closed to the public.

The Bágrián *langar*.

There are two or three famous *langars* or alms-houses well known throughout the country. That of Bágrián lies 40 miles south of Ludhiána and is administered by a resident family of Tarkháns (called Bháis), who hold in *jágír* 2 or 3 villages in our territory and more in Patiála and the other states, besides owning a large area of land. Numbers of travellers are fed daily from the public kitchen, which is open to all comers; and about 1,000 maunds of grain are distributed to the public annually. The *déra*, or building, is a very extensive one. The family has always been in the habit of marrying and the son succeeds as manager.

CHAP. I, C. Population.

The Bágrián langar.

The present Bháí, Arjan Singh, is a gentleman of note in his own large village of Bágrián. This *langar* is very well managed. It was kept open in the worst years of drought (1862 and 1868), when the smaller institutions throughout the country were closed, and afforded relief to numbers of the poorer classes in the famines of 1897—1900 who flocked to it in search of food. There is also a large *langar* at Jaspál Bángar, near Ludhiána, which is kept by a family of Udási *faqírs*, whose custom is also to marry. This is an ancient institution, the first endowment having been made in the time of the emperor Muhammad Sháh, and successive rulers having added others, till they have grown to some 800 acres. The present *mahant* is Partáb Dás; and he appears to do his best to keep up the institution, which is held in great repute. His father Gúláb Dás is said to have died deeply in debt in consequence of his expenditure in keeping the *langar* open in the years of scarcity. The Heran (Jagraon Tahsíl) *langar* is held by an Udási ascetic; and, although its endowments are not so large as those of the other two, it is almost as well-known. The late *mahant*, Gursarn Dás, is said to have distributed in the famine of Sambat 1917 (1862) 8,000 maunds of grain which his predecessor had stored, and to have invited the starving people from all quarters, sending no one empty away. The present *mahant* is Mukat Rám.

JaspálBángar langar. *Heran langar.*

Observances and superstitions.

A whole book might be written about the religious observances, superstitions, &c., of the people; but it will suffice here to refer to a few points, which will serve as illustrations of the popular forms of belief, and of the degree to which ceremonial observances still obtain.

Power of the Bráhmans and priests.

Hindús and Sikhs, except Kúkas, are greatly ruled by Bráhmans. Every one has a *parohit* or priest for every-day life, and a *páda* or superior priest (who must be a learned man, read in the Scriptures) for marriage and other celebrations. Whatever observances a Bráhman enjoins must be performed; and there is often a good deal of tyranny, hard penances being ordered for trifling faults. The Muhammadans have not the same necessity for priests in every-day life; but it is scarcely their own fault that they are so free, for they would readily believe anything; and this appears to be the only point of superiority in their every-day religion over that of the Hindús that they are not allowed to indulge in rites and superstitions to the same extent.

Ecclesiastical administration and Christian Missions.

The Chaplain of Jullundur visits Ludhiána occasionally. The church in the Civil Lines built by Government in 1882, at a cost of Rs. 5,237, seats 50 people. The Mission church stands in the Mission compound, and Presbyterian services are held in it.

The American Presbyterian Mission.

The following account of the well-known American Presbyterian Mission has been kindly contributed by the Rev. E. M. Wherry, D. D., Senior Missionary of the station:—

"'The American Presbyterian Mission in the Punjab,' which is to be distinguished from 'The American United Presbyterian Mission in the

CHAP. I, C.

Population.

The American Presbyterian Mission.

Punjab' was for 69 years known as the 'Ludhiána Mission of the Presbyterian Church in the United States of America.' This title was recently changed to that of 'The Punjab Mission of the Presbyterian Church, United States of America.' The following are now principal stations of this Mission in the towns of the Punjab and United Provinces of Agra and Oudh, in the order in which they were occupied :—Ludhiána, Saháranpur, Sabáthu, Ambála, Jullundur, Lahore, Dehra, Hoshiárpur, Ferozepore and Missouri. The Mission is controlled by a Board, with head-quarters in New York (which also now controls the American Presbyterian Missions in the United Provinces and Western India with their central stations at Alláhábád and Kolhapur).

"The Ludhiána station was the first point in the Punjab occupied by this Mission, having been established in 1834. It has out-stations at Khanna, Máchhiwárá, Ráikot and Jagráon, in this District. The Rev. John C. Lawrie, D.D., the first missionary, was unable to remain more than a year, and was succeeded by the late Rev. John Newton, the veteran missionary of Lahore, who arrived in 1835. The principal branches of the Mission work, besides preaching, are :—(1) the City High School for boys, established in 1834, with several branches in the town opened at later periods; (2) the Ludhiana Press Mission at which is published a weekly anglo-vernacular newspaper called the *Núr Afshán*; (3) a Christian Boys' Boarding High School, first established in 1875 at Lahore, but transferred in 1877 to Ludhiána. It was closed for three years, but re-opened in 1883. Extensive buildings have been erected at a cost of Rs. 30,000. An Industrial Department has been added in which carpentry, Persian rug weaving and tailoring are taught. A Commercial Department for teaching typewriting, stenography and book-keeping has recently been added. For many years an orphanage for girls and a dispensary with a missionary doctor in charge were kept up, but both these institutions are now closed.

"The church, organized in 1837, has now a community of native Christians 272 in number. The sons and daughters of this church are found in every part of North India, employed in other Mission Stations. Itinerant preaching work is extensively carried on in the District, and a good deal of work is done in the town by means of chapel services, street preaching, and teaching of women in the Zenána and Girls' Schools.

"In 1857 every building connected with the Mission, except two dwelling-houses, was burnt down by the mutineers from Jullundur, aided by the rabble of the town, but an indemnity was paid by the authorities, a tax being levied on the town for the purpose. Fortunately all the missionaries and native Christians escaped with their lives.

"A clumsy wooden press, the first ever established in the Punjab, was brought out and set up by the Rev. J. Newton in 1835. Thus was founded the Ludhiána Mission Press, which publishes books in every language and script used in the Punjab. Since its institution in 1835 books, tracts, and the sacred Scriptures have been scattered broadcast over all parts of India, in Persian, Urdu, Hindi, Panjábi and Kashmíri. Some idea of the zeal of the missionaries may be gained from the fact that as many as 25,000 books and tracts, with portions of Scripture, were given away at the Hardwár fair in 1844. Early in 1845, the press, with all the books in its depository, was burnt down; only the wooden press and a portion of the type escaping the fire. However, friends in India came forward, and contributed a sum, which not only covered the Rs. 20,000 lost, but was also sufficient to enable the missionaries to publish a number of books. During the three following years 68,000 volumes were published and new founts of English, Hindi and Panjábi type were obtained, so that the press was enabled to undertake a large amount of work for the public,

CHAP. I, C. Population.

The American Presbyterian Mission.

besides the books published by the Mission. Among the works thus published for the public benefit were the Panjábi Grammar, idiomatic sentences in English and Panjábi, and a Panjábi Dictionary, published in 1854. These books were, until recently, the only ones available to officers who had to learn Panjábi, and for them they were indebted to the Venerable Dr. Newton and the martyred Janvier. In 1857 the press was again burnt down by the mutineers, and the depository on the Mission premises, with its many thousands of volumes for distribution, was reduced to ashes, its broken and blackened walls alone remaining. The greater part of the loss incurred at this time was however made good to the Mission from the indemnity levied on the town, and so in 1858, we find the press in full swing again. Since then its work has been carried on with scarcely any interruption. Books and tracts have been published every year by the thousand under the auspices of the various Bible and Tract Societies, American and English. The first complete edition of the New Testament in Urdu was published in 1865, and the whole Bible in 1868. The latter year saw also a complete translation of the New Testament printed in Panjábi. Up to 1870 the Mission had supplied all publications, except the complete Scriptures, to missionaries, free of cost, the missionaries usually giving them to the people gratis. A question as to the wisdom of this policy was then raised, as it was evident that large quantities of Scriptures and tracts found their way into the *bázárs* where they were sold as waste paper. The result of the discussion was that the policy of selling almost all the books at a nominal price, just enough to prevent their being purchased as waste paper, was adopted. It was expected that the number of books distributed would be much less than in previous years, but as a matter of fact the largest number of volumes (187,000) ever printed in a single year at Ludhiána was issued in 1872. In 1873 the semi-religious newspaper the *Núr Afshán*, was started by the Rev. E. M. Wherry. At first it contained only 4 pages of reading matter, at first in Urdu, but was soon enlarged to 8 pages, and later it became an anglo-vernacular paper with 24 pages, 8 of which are in English. It has now a weekly circulation of about 500 copies, and is read by all classes in the principal towns of the Province as well as in some distant cities of the Empire. Though a religious journal edited with special reference to the Muslim and Hindu controversy, it depends in part on non-Christian patronage, and, with the aid of an annual grant of paper given by the London Religious Tract Society, it is supported at little cost to the Mission. The whole number of Scriptures and portions printed since 1834 in Urdu, Hindi, Panjábi, Persian, Kashmíri, Sindhi and other languages or dialects cannot be precisely determined, but at the end of the first half century in 1884 the late Dr. Newton estimated the total number of pages printed at 267,000,000. (History, American Presbyterian Missions, India, p. 48.)"

"The present European staff is as follows:-Four missionaries and their wives, 4 unmarried ladies, 7 native ordained ministers, 17 native unordained preachers, 20 native Christian teachers and 10 non-Christian teachers. Since 1890 the Mission Press has been leased to Mr. M. Wylie, a native Christian gentleman, who has enlarged the plant at his own expense and is introducing steam-presses capable of increasing the output by at least tenfold. This arrangement practically releases one European missionary for other forms of Mission work.

"The influence of the Mission upon the people of the town and Province has been considerable. A large proportion of the men in the town are now able to read and write the vernaculars, and multitudes can speak or read the English language as well. Pupils of the Mission are found

CHAP. I, C.
Population.
The American Presbyterian Mission.

in many offices in the Punjab, and the first native Civil Servant (Covenanted) of the Province was educated for College in the Mission High School. Mission Girls' and Zenána Schools were for many years carried on by the Missionary ladies, and to these have now been added many others under Hindu, Muhammadan and Government superintendence. Similarly three High Schools, in addition to the two Mission High Schools already noticed, have been established, *viz.*, the Municipal Board School, the Arya and Islámia High Schools. The result of the school work and the influence of the Press have been the awakening of thought in many minds. Prejudices against the Christian religion have been softened; while a fair degree of success in the way of conversions has been obtained."

Miss. M. R. Greenfield has kindly supplied the following account of the Ludhiana Zenána and Medical Mission :—

Ludhiana Zenaná and Medical Mission—"This Mission was begun in 1867 by the Society for Promoting Female Education in India and the East, which, at the invitation of the Missionaries of the American Presbyterian Mission, sent Miss Jerrom to carry on Zenána and School work in this city. A Christian Girls' Boarding School was built, and carried on for many years, till financial difficulties compelled the S. F. E. to close it. (This building has now been sold to the Committee of the North India School of Medicine for Christian Women, for an account of which see Chapter III, Section I below.)

"Medical work was begun in 1875 among Zenána and School pupils and became so popular that in 1881 the City Dispensary for Women and Children was opened, followed in 1886 by a Branch Dispensary in Gill and in 1897 by another Branch Dispensary in Phillaur. The Charlotte Hospital for Women and Children was opened in February 1889 and has 30 beds. In 1903 there were 655 in-patients treated in this Hospital; and an aggregate of 17,859 visits to the Dispensaries. On the dissolution of the S. F. E. in 1899 the sole responsibility of this Mission devolved on Miss Greenfield, who had been in charge of it since 1879. It was, and is, dependent for support on friends of the work to whom an Annual Report has been submitted since 1880. The present staff numbers eleven ladies, assisted by Bible women, Zenána and School teachers, nurses, compounders, &c. In addition to the Medical, Zenana and School work is being carried on in the city and District."

For further particulars regarding Mission work in the District Miss Greenfield's 'Five Years in Ludhiana,' 1886, may be consulted.

Occupations of the people.
Table 17 of Part B.

Total population.	Urban.	Rural.
673,097	86,966	586,131

Table 17 of Part B. shows the various orders of occupations followed by the people as given in Census Table XV to which reference must be made for further details. The figures in the margin show the distribution of the whole population between the towns and villages, and the numbers of actual workers, agriculturist and partially agriculturist, in the District.

Total actual workers.	Agriculturists.	Partially agriculturists.
263,155	137,806	4,206

Only those of the workers who are agriculturists pure and simple are returned under that name; many, however, of those returned as partially agriculturists depend in great measure for their livelihood upon the yield of agricultural operations.

CHAP. I, C.
Population.
Food and meals.

In the cold weather the food of the common people consists of cakes (*chapátti*) made of *jowár* (millet) or of maize, a mess of *dál*, or pottage of *moth* or *másh* (pulse), with some green *sarson* or gram cooked for vegetables (*ság*). With this is drunk *lassi* or butter-milk. In the hot weather bread made of wheat or wheat and gram mixed (*berra*) is eaten instead of maize or millet, with *dál* or pottage of gram. A man working in the fields will eat one small meal, generally the leavings of the previous day, with some *lassi* in the morning after he has been working a few hours, and a heavy meal at noon. This food is brought to the field by the women or children. If he is tired and hungry in the afternoon, as he generally becomes in the long days of the hot weather, another small meal is taken about 4 or 5, and the day's labour is crowned with a heavy meal by way of supper in his house after dark. An able-bodied man working in the fields all day can eat upwards of a seer of grain made into cakes (if he has nothing else to eat with it), the allowance for each woman and child being half seer or less. Vegetables of all sorts, pumpkins, carrots, and radishes, &c., are eaten when in season, and the amount of grain consumed is then less. The Bét people grow and eat *kaddus*, *kakrís* and radishes, while in the Dháia carrots, radishes and green *sarson* are the usual form of vegetable. The Dháia people are very fond of a mess of Indian corn meal (*álan*) and carrots or *sarson* mixed, the grain being only about one-third of the whole. On the occasion of a marriage or other ceremony superior food is consumed, and a great deal of sugar in some form or other (*gur*, *shakar*, *khand*, &c).

The following note regarding the food of the people was furnished by the District authorities for the Famine Report of 1879:—

Wheat, gram, barley, *jowár*, Indian corn, form the staple food of the people of this District. The average consumption of grain per annum by a family of five persons is 45 maunds for agriculturists, and 33 maunds 30 seers for residents of towns. Agriculturists eat very little wheat, but live on gram, barley, maize, and *jowár*. In June wheat, barley and gram is consumed, and in November *jowár* and maize.

The Jat eats meat of all kinds, except beef and venison, when he can get it. Fish is considered inferior food and people who eat it are looked down upon, though not outcasted. Hindús avoid goat's milk in the *shrádh* days, and no one but a Bráhman drinks the milk of a cow with black nipples. In fact such a cow is always given to a Bráhman. The use of spirits and drugs is very uncommon amongst the agriculturists, who are a most frugal people. The Garewál Jats used to have a reputation for using opium and *post*, but the custom is disappearing with the last generation. The other Jats and the Bét people appear to be free from vices of this sort, except that the latter indulge to excess in smoking tobacco.

In the towns the Súds and some of the lower classes from down-country consume a great deal of spirits; but the ordinary Hindu and Muhammadan still considers it a sin to do so.

Food and meals.

The Civil Surgeon writes: "Infants are sucked at the mothers' breasts until they are 6 or 9 months old, great care being taken that no other food is given. In the 6th or 9th month a day is fixed on which a ceremony called *khírchatái* takes place, when soft food such as rice cooked in milk is put into the child's mouth. Thenceforward the child is occasionally fed on soft food, besides milk. When a year old it is regularly fed twice a day with *dál kichari* and milk. The feeding of children over one year old is not so carefully looked after, and the result is that dyspepsia, dysentery and diarrhœa carry off large numbers of them." There is, however, nothing in this account which explains the excessive mortality among female infants as compared with male.

Dress: Hindu Jats, men.

The dress of the people does not differ materially from that of the other Punjab plain Districts. The Hindu Jat generally wears undyed clothes (one can scarcely call them white), made of home-spun cotton stuff. They consist in the simplest form of three articles, a turban of coarse cloth, a waist cloth (*dhoti*) and a *chádar* or cloth worn over the shoulders, the last two being made of *khadar* or *dhotar* rather thicker stuff. These, with a pair of shoes made by the village *chamár*, constitute the simple and inexpensive wardrobe of nine-tenths of the Jat population for the greater part of the year. A Sikh substitutes drawers (*kachh*) for the *dhoti*. On the occasion of a wedding a somewhat better dress is borrowed from a neighbour, who has been extravagant enough to purchase it, and some colour is shown in the *pagri*, the white cloth being tied over one coloured yellow (*basanti*) or some shade of red (*kassumbhi*, *guléi*, &c.) or green, or both are coloured. The people coming from the Jangal with carts affect these coloured *pagrís*, and the mixtures are often tasteful. In the winter the Jat has a blanket of wool, if he can spare Rs. 2 to buy it; otherwise he has a *dohar* or *chautahi*, a sheet of very thick cotton stuff, double wove. In the latter case his outfit costs about Rs. 3. A well-to-do Jat will have better stuffs and wear a short tight-fitting waistcoat (*kurta*) and an *anga* or *angarka*, or loose long one over this and a pair of *pajámas* of country or of English cloth, his turban also being made up of two pieces (a *safa* on the top of a *pagri*) of superior cloth, often coloured. If he is a dandy or wants to appear better than his fellows, he will wear a black or coloured coat, made of thick or thin English stuff (broadcloth or alpaca) according to the season; but this is a recent fashion, and the garment is called a "coat." *Chogas* are also worn.

Jat women's dress.

The Jat women wear *pajámas* (called *suthan*) made of *susi*, coloured cotton stuff, and a *chádar* worn over the head and shoulders, either coloured (young women) or uncoloured, made of *gára* or

CHAP. I, C.
Population.

Jat women's dress.

dhotar, thick or thin cloth according to the season. This upper garment when coloured may be of dyed cloth, or of *phulkári*, *i.e.*, worked with silk flowers, or of *silári*, another form of silk work; most women also wear a *kurta* or waistcoat like that of the men. When going to another village, they wear a *ghagra* or petticoat above the trousers, and a *choli* or bodice of coloured cloth.

Muhammadan dress.

Of the Muhammadans the Gújar and Aráín men wear a waist cloth (called *tahmat*) of uncoloured or more commonly of coloured cloth, or a *lungi* (a check or tartan). The *pagri* is generally white. A *lungi* is also worn over the shoulders, generally blue and white, or red and white. In the cold weather they wear a *khes* or *chautahi* of the same sort as the Jats. The women do not wear trousers, but a petticoat, generally of blue cloth, a *kurta* and a shawl, also of blue cloth. The Muhammadan Rájpúts dress in much the same way as the Jats, seldom displaying colours. Their women wear *pajámas*, a *kurta* and a sheet (*chádar*) of white cloth. A well-to-do Muhammadan Rájpút dresses in almost exactly the same way as a Hindu Jat of the same class.

Jewelry.

Jewelry is called *tagáda* throughout the District, the word *zewar* not being known. Amongst Muhammadans men never wear jewelry; and amongst the Jats only three pieces—necklaces made of gold and coral beads strung together (*máhla*), bracelets of gold or of silver (*kangan*), and rings of silver or gold with roughly set stones (*mundri*). The use of these is confined to such as are better off than the ordinary run; but a Jat will always borrow a pair of bracelets if he can on the occasion of a marriage. Boys up to 9 or 10 wear some ornaments round the neck. Jat women have generally a greater display of jewelry than Muhammadans, because they are fonder of show, and also because their husbands are better off and can afford to give them more. A Jat woman in a well-to-do village will turn out for a wedding covered with ornaments of silver, and here and there a piece of gold. The ornaments commonly worn are the same for all classes, except that Muhammadan women will not wear any on their heads. The following is a list of those in general use:—

Where worn.	Name.	Description.	Price.
			Rs.
HEAD ...	*Chaunk*	A silver boss worn on the top of the head	9 to 15
	Phúl	A smaller boss of silver, worn one on each side of the head over the ears.	1 to 2
BROW ...	*Bandián*	A fringe of gold worn across the brow ...	30 to 60
	Tavítrián	Amulets of gold worn hanging over the brow (six).	6 or 7
EAR ...	*Dandián*	Earrings and pendants worn in the ears, made of silver.	5
	Bálián with *pipalvatre*		7 to 9
	Dhedu with *chumke* or *kánphúl*.		12 to 15
	Bála ghungriwála ...		2 to 3

CHAP. I, C.
Population.
Jewelry.

Where worn.	Name.	Description.	Price.
			Rs.
NOSE	*Nath* with *chutki* ...	Silver nose ring with gold pendant, worn in the side of the nose.	20 to 40
	Machli	Gold ring for the middle of the nose	10 to 15
	Laung	A gold stud let into the side of the nose	1 to 3
NECK ...	*Tandíra* or *has*	Necklet of silver	15 to 26
	Máhla	Necklace of silver beads	7 to 9
	Hamél	Ditto of rupees joined together ...	15
	Chaukián	Ditto of square pieces of silver ...	10
HAND AND ARMS.	*Gokru*	Silver bracelet	20 to 30
	Kangan	Ditto	10 to 15
	Chúrián	Ditto	20 to 60
	Ponchi	Ditto made of strung beads of silver.	80 to 100
	Bázúband	Armlet	10 to 15
FEET ...	*Bánkan, tore*	Silver anklets	15 to 20
FINGER ...	*Angushtri, chhalla, mundri*	Finger rings of silver	1 to 2

The workmanship of this jewelry is of the roughest descriptions.

Houses: Internal arrangement, Hindu Jats.

The ordinary house of the Dháia (belonging to a Hindu Jat) consists of a *deodhi*, or porch leading out of the lane. On one side of this the cattle are tied and fed at the *khurlis*, or troughs made of mud; and on the other are the beds of the inmates; or, if the house is a good one, and there is plenty of room inside, the carts are kept here. The *deodhi* leads into an open courtyard (*sahn* in Hindústáni here called *bera*) with the same arrangement as the *deodhi*, the latter being really used when it rains, and the cattle and men ordinarily preferring the open space. Facing the *deodhi* across the *bera* is the *dálán* or verandah, in front of the rooms (generally two) which are really the house. At one side of the *dálán* is the *chaunka* or *rasoi*, the place where the food is cooked; and at the other side is a *koti* or press, which is the store-room of the house. The people live principally in the *dálán*: and the rooms (*kotri*) are used for storing grain and all valuables, brass-dishes, &c., and one for the agricultural implements. This plan can be traced in all the Hindu Jat villages; but, while in some of those in Samrála Tahsíl space is so scarce that the *bera* or courtyard is represented by a mere opening a few feet square in the roof, and the whole house is but one room, the *deodhi* and back rooms having been united, in the Jagráon Tahsíl and Jangal villages the houses are very commodious, the courtyard wide and the *dálán* backed with four or five rooms. In Samrála the village site cannot be extended, and has to accommodate a much larger number of people than it used to. Many houses will be found to cover a space not more than 10 or 12 feet wide, and about 30 deep; and in this are crowded the family and the cattle. In Jagráon and the Jangal there is nothing to prevent the people spreading out, and they are continually doing so, often themselves

CHAP. I, C. — Population.

Houses: Internal arrangement. Hindu Jats.

keeping to the dwelling-houses inside and making a walled enclosure, with a substantial shed, for the cattle outside of the site. In the crowded villages the tops of the houses are much used; and for getting upon them a strong wooden ladder is kept in the lane outside the door, leaning against the wall. Every house has one of these, and the result is to make the passage through some of the villages very awkward for a horseman. The *charri* and maize stalks kept for fodder are stored on the top of the houses.

Hindús consider houses unlucky when they broaden towards the front. These they call *Sher-dahan* or *bag-muha*, those that broaden towards the back *ganmukha*—are lucky. A house should have an even number of sides, an odd number being unlucky. Dwelling-houses should open to the south, but shops need not do so. Almost all the Jat tribes build an upper story or *chaubára* but the Nagra Jats of Gamrála consider that such story brings bad luck. When an upper story is built the beams and rafters of the upper rooms must not cross those of the lower. The rafters are named after the three gods Basturáj (god of houses), Indar (god of rain), and Yam (god of death), the first rafter being called *raj*, the second *ind*, the third *yam*, the fourth *raj* again and so on. The rafters should end with the one called *raj* as this means prosperity, if the last rafter is called *ind* the house will leak, and no serious objection is taken if the rafters end with this, the second name of the series. If however they end on the last of the series, *yam* adversity and death are inevitable.

When a family enters a house that has been vacant for some time *bastu puja* is performed, and if the house has never been used before the ceremony called *griah pratishtha*. Hand-prints (*thápa*) on a well are signs of a joyous event.

Houses of Muhammadans.

The Muhammadan houses in the Bét have no *deodhi* but merely an open court surrounded by walls four or five feet high, into which the *kotri* or house opens, generally without a *dálán* or verandah. The cooking place, called *chuliáni* is roofed separately. On the bank of the river where there is constant danger of the house being washed away, the people live in huts made completely of thatching (*jhao* or *dib* grass), or four walls of mud have a thatching of this on the top of them.

Furniture.

The furniture of the houses is simple, and consists of a few beds, as many low chairs (called *piri*) as there are women, spinning wheels (*charkha*), cotton gins (*belna*), and a *chakki* or hand-mill for grinding corn. The women sit on the chairs when spinning, &c. The farming implements are all kept in the house. The grain is stored in the *koti*, which is a press made of mud against the wall, or in a *bokhári* which is half sunk in the wall These presses have an opening with a wooden door in the upper part, and things are put in or lifted out of them. The *bharola* is

CHAP. I, C.
Population.
Furniture.

a large cylinder of mud, used for storing grain only, with an opening at the bottom, through which the grain is allowed to run when required. These appliances are made by the women. In many houses wooden boxes will also be found, being used for storing clothes principally, also round ones of leather called *patiár*.

Utensils for cooking and eating.

The cooking and other utensils of the Hindús are almost entirely made of brass, the only ones of earthenware being the water jar (*ghara*) and a cooking pot for vegetables (*táori*). The common dishes are a *prát* or basin, in which the flour is kneaded; a *gadwa* or *lotah*, for water; a larger vessel of the same shape called *dolni* in which water or milk is kept for use; *batlohi* a larger vessel, and a *gágar*, larger still, made either of iron or of brass; a *tháli* or plate, from which the food is eaten; and a *katora* or shallow cup from which water or milk is drunk. These dishes are all of brass. The bread is cooked on the common *tawa* or griddle of iron. *Kaul* is a small cup of brass; *karchi* a spoon of brass, wood or copper. These with a *chimta* or tongs, for arranging the fire, and a *sandási* or instrument for lifting a *lotah* off the fire, make up the usual kitchen utensils of the Jat. Taken altogether they represent a good deal of money. The Muhammadans use an earthenware cooking pot, which they call a *hándi*. Their other dishes are of earthenware, or of copper tinned amongst the better classes, and have different names from those of the Hindús. They use a *kunáli* or basin for kneading; a *tabákh* or plate for eating out of; a *piála* (Hindu katora) or cup for drinking, made of earthenware. The copper dishes used are a *tháli* or plate, a *katora*, a *gadwa* or *lotah*. The *tawa* or griddle is of iron, like that of the Hindús.

Funeral rites and ceremonies.

It is not necessary to give in detail the ceremonies and rites attending the death of a Hindu. These are observed by the Jats more or less fully; the body is burned and the *phúl* or *ast*, *i.e.*, the partially consumed bones of the hands, &c., collected and sent to the Ganges in charge of a Bráhman, who receives a small fee in addition to his expenses, and also takes 8 annas or Re. 1 to the *tírath parohit*. or Bráhman on the spot, who in return for this throws the bones into the Ganges, and notifies this fact to the relative by letter. The other relatives of the deceased go about their work after three days' mourning; but the son or other relation whose duty it is to perform the obsequies is shaved and maintains the *pátak* or period of purification for eleven days (Hindu Jats). After seventeen days the mourning is over, and the chief mourner celebrates this by a feast to the relations and to the Bráhmans, the event being called a *hangámah*. Large sums are sometimes spent on this occasion. Like other Hindús the Jats keep the *kanágat* or *sarád*; and on the day that corresponds with that of the decease of the relation whose obsequies he has to perform, the chief mourner gives food to the Bráhmans before he or his family eat any.

CHAP. I, C.

Population.

Amongst the Muhammadans the ceremonies are simpler. The body is buried with the service enjoined in the Qurán. On the third day and again on the 40th the chief mourner distributes alms (*khairát*); and on the first of these occasions prayers are offered for the deceased.

Daily life and works Amusements.

The daily life of the ordinary cultivator is perfectly monotonous though perhaps not more so than that of any farm labourer at home, rest succeeding toil for most days of the year. A marriage or a fair gives an occasional diversion. The people of the western parts have much more variety and less toil. The youth of the Jagráon and Jangal villages have several games, the principal of which are *sawnchi* and *kabaddi*. In the first of these, which is played throughout the Punjab, one man runs backward, and two follow and try to catch him, he striking them off with his open hands. *Kabaddi* is described in Forbes' Dictionary, and is a sort of prisoner's base. Wrestling is not common. More intellectual amusement is sometimes found in listening to songs sung by one of the people, or by itinerant singers (*Mirásís* or *dhádís*), who recite the tales of 'Hír Ránjha,' 'Sassi Punu,' or such others to the accompaniment of a fiddle (*sáranji*) or a tambourine (*dhad, douru*). But it is only in the rainy season that the ordinary cultivator has time to listen to these, for he is generally much too tired by the evening to think of anything of the sort. Occasionally a body of Nats or Bázigars (strolling acrobats) visit a village, and the people will collect to see the exhibition. But it cannot be said of the agriculturist of the District, Hindu or Muhammadan, that he is fond of any sort of amusement, for his hours of idleness are few, and time is never heavy on his hands.

Divisions of the day.

The divisions of the day are as follows:—

Amratvela	... Sunrise.	Dindhala, Tijápahr, Laudevela.	Afternoon.
Cháhvela, lassivela	Morning.	Athan Takála	... Evening.
Rotivela	... 10 to 12 o'clock.	Dhandulkán	... Dusk.
Dopahr	... Noon.	Rát	... Night.

An account of the months will be found in the chapter on agriculture.

CHAPTER II.—ECONOMIC.

Section A.—Agriculture.

CHAP. II, A.

Agriculture

General agricultural conditions.

Soils in the Bét.

Gordon Walker, S. R., § 7.

In the immediate vicinity of the river is the *mand* or *kachcha*, a strip of land annually flooded. Something occurs to divert the force of the river from a certain point, and when the floods subside, a shallow deposit of silt is found covering what was before an expanse of sand. The accumulation of silt goes on for a year or two, being assisted by the growth of *dib* grass (*Eragrostis cynosuroides*) which is generally followed by *pilchi* called here *jhao* (*Tamarix orientalis*). When the deposit is about six inches in depth the land is gradually reclaimed. The formation of this deposit is by no means uniform. A few years may leave three feet of first rate soil or the deposit may remain too shallow for cultivation and apparently good land is often abandoned by the people after a trial. The action of the Sutlej in this way appears to be mostly beneficial. The *mand* tract of the first 20 or 30 miles is probably one of the richest pieces of land in the country, and with the very slightest labour magnificent crops are raised in what is really virgin soil. Lower down to the very end of the District the silt is also most fertilizing, although the crops are generally of an inferior class. The river though a powerful is a capricious agent, and the saying '*Ek sál amír, ek sál faqír*' applies to the inhabitants of this as of any other riverain tract. The cultivator may find, when the floods have subsided, that barren sand has taken the place of his fertile fields, and that he owns no land that will yield anything. In the older or *pakka* Bét the process of formation ceased long ago and the deposit of soil is generally three to five feet in depth, though in places the old river sand actually appears on the surface or is just concealed by a coating of soil. The soil of the *mand* is generally a stiff, moist loam of dark colour; and that of the *pakka* Bét of the same character, but drier and of a lighter tint, the proportion of clay being considerable. There is a great difference between the productiveness of the first 10 or 15 miles of the Bét and that of its western part, but this is perhaps due to the heavier rainfall in the former rather than to the quality of the land. The Bét is everywhere cut up by streams which convey the drainage to the river. In the rains these overflow and flood the country; but they are mostly dry for the rest of the year. In such a damp tract it was to be expected that in places impeded underground drainage should produce *kallar* or soil so impregnated with salts as to be barren. There is some of this along the Budha Nála, and it appears here and there all over the Bét, and patches of cultivated land may be found in which the salts have prevented the growth of the crop; but the evil is not widespread. It is worst about Núrpur in Ludhiána and in the adjoining part of the Jagráon Bét, where the course of the

CHAP. II, A.
Agriculture

drainage lies in places away from the river, and the water oozes out just under the high bank.

Soils of the Dháia.
Gordon Walker, S. R., § 9.

In the neighbourhood of the high bank the upper soil is a poor light sand, shifting under every wind, and blown into hillocks. There is a good subsoil, however, and this will account for the very fair crops that are raised out of what appears little better than a wilderness. This sandy tract extends inland 4 or 5 miles, the surface getting gradually more even and the soil improving. South of it in the main portion of the uplands, every variety of soil will be found, from a very stiff clay to the lightest of sand. In the half of the District east of the Máler Kotla road the prevailing soil is a stiff loam of darkish colour, with a good deal of clay, while to the west a much larger portion is light loam or sand. But in both parts sand occurs, though it is as described in Ch. I, Sec. A, confined in Samrála to two parallel ridges, while elsewhere sand-hills are scattered all over the face of the country.

Popular classification of soils.
Gordon Walker, S. R., § 97.

There are a number of soils recognized by the people, and with appropriate names. Our Regular Settlement introduced an elaborate classification, but the names used were known in the country before this. The land round a village site is referred to as *niái* because of its situation even in the Jangal villages, where there is no irrigation, and no soil so designated in the Government papers. *Dákhar,* applied to hard soils, is a term that has been in use from time immemorial in the District. In the uplands the Jat will divide his land into *senju* (irrigated) and *máru* (unirrigated). The latter he will, in speaking to a revenue officer, describe as *tibba* or *rét,* and sometimes as *budhi* if there is any appearance of sand to justify him; or, if the soil is a good even loam, he will tell you it is *pílak* which is a very coarse cakey soil, almost barren, and worse even than sand. If it is a good dark stiff soil, he will tell you it is *rarra chilan* or *kallar*. In a village with light soils the people will speak with apparent envy of the *dákhar* or clay loam of some other village, where the crops are so good; while the owners of this latter sort of soil sigh for the light lands (called *resli*) of their neighbours, which required little ploughing, and where the crops spring in the driest of years. In the Bét the people speak of *mand* or flooded land; *rakar* or *kallar*, hard land yielding little; *passi*, or soil in which the sand is very near the surface.

Classification adopted in former and present Settlements.

In the Regular Settlement the terms used were *niái* or land adjoining the site and heavily manured; *dákhar*, or hard clay soil; *rausli* or ordinary loam; and *bhúr* or sand. These when distributed over the irrigated and unirrigated lands gave much too elaborate a classification. Thus in the Dháia there were these classes of irrigated lands: *Niái cháhi, dákhar cháhi, rausli cháhi, bhúr cháhi,* and finally *mohitá cháhi*, or unirrigated land capable of being watered by a well. Of the Revised Settlement Mr. Gordon Walker wrote:—

"We have simplified the classification as far as we could, and have divided all lands for assessment purposes into—For the Dháia: (1) *niái*

cháhi or first class irrigated land adjoining the site; (2) other well lands; (3) unirrigated *dákhar*, or *rausli*, *i.e.*, loam; and (4) *bhúr* or sand. The first of these is an artificial class, but the division of unirrigated lands is a broad distinction, which the people themselves recognize. In the Bét no natural classification was attempted; but the lands were recorded as (1) manured and ordinarily bearing two crops (*dofasli*), and (2) unmanured, bearing one crop (*ekfasli*). These divisions are quite enough for practical purposes, and I do not think that anything would have been gained by attempting a more elaborate classification. In the uplands I began by having 3 classes of unirrigated lands; clay, loam (*dákhar*), sandy loam (*rausli*) and sand (*bhúr*); but further experience induced me to combine the first two. In the Bét there is great uniformity of soil. The only variations are when the land is newly formed (*mand*), where it lies low and is moist, or where the sand is near the surface (*passi*)."

CHAP.II.A.
Agriculture
Classification adopted in former and present Settlements.

Comparison of the various soils.

In the uplands the lighter soils prevail along the high bank and to the south-west of the District, while those of the eastern portions are much stiffer. Putting irrigation aside, the best soil is that which best suits the rainfall. A hard *dákhar* soil requires a great deal of rain, which it generally gets for the Kharíf; but even this crop suffers from breaks in the rains. But the most critical period of the whole year is the time of the Rabi sowings. It is well known that a clay soil is capable of absorbing a much greater amount of moisture than a sandy one; but the former requires a very heavy rainfall to saturate it thoroughly, and dries much more easily, which is a very important point in this climate. *Dákhar* land requires to be thoroughly moist before ploughing is possible at all; and even if it has been reduced to a good tilth, and the rains have stopped too early, it will often be found to have lost all its moisture; and the cultivator knows he may spare his seed, for it will not germinate. If the moisture for sowings is good, and if the usual winter rains do not hold off and are also sufficient, the produce of *dákhar* will be much heavier than that of any other soil; but it is seldom that all these contingencies turn out as the cultivator would wish them to. On the other hand *rausli* or sandy loam is very safe for the rain crops. It requires little ploughing; and, though not capable of holding so much as *dákhar*, retains moisture in the subsoil much better. For weeks after *rausli* land has been ploughed and rolled preparatory to sowing, it will be found that there is good moisture at a few inches from the surface. Thus the best soil of the District for rain cultivation is the *rausli*, for it is never without a crop; while, even in the Samrála villages with a higher rainfall than elsewhere, we find that every 4th or 5th year a great part of the unirrigated land has no crop, because sowing was impossible for want of moisture. Many villages have both light and stiff soils in their area; and this is the most desirable combination. *Bhúr* is often called sand, but it is really a shifting and sandy soil on a good subsoil. *Bhúr* lands are poor, and the crops on them are in the most favourable years rather weak, but they have the advantages of needing almost no tillage and retaining what moisture they get

CHAP. II, A. Agriculture

most tenaciously in the subsoil. They suffer, however, in a year of heavy rainfall, and in the villages along the high bank the crop is generally best when that of the lands further inland is drying or when no sowings have been possible.

Bad soils.

In the Bét, *reh* or the saline efflorescence, due to impeded underground drainage, is common along the Budha Nála, but not elsewhere, except to the west of Ludhiána. In the neighbourhood of Núrpur barren patches will be found in the wheat fields; while further west, in the villages surrounding the plain of Aliwál, the surface is encrusted with it, the land being apparently water-logged, as is proved by the large area under water which has oozed out of the ground just below the high bank under Bharowál. Elsewhere in the Bét and in the harder soils of the Dháia, the land may show a tendency to saltness, specially in drainage lines, this being evident from the failure of the crop to germinate; such soils are called *chilan* or *kallar*. *Pilak* is soil of a deep yellow colour, more or less unfruitful, and distinguishable by its tendency to cake. It appears to be composed of a large grained coarse sand, like gravel; and is the worst of all Dháia soils.

Agricultural calendar. *Gordon Walker, S. R.* § 96.

The agricultural year begins with the *Nimánia*, which is the first of the half-monthly fasts of the Hindús, and falls about the 15th June. Lands are rented and accounts cleared up by this date, and generally a new start made for the year. Most of the land has been enjoying a rest of 2 or 3 months, the exceptions being where sugarcane, some of the cotton, and patches of tobacco and vegetables round the wells occupy portions of it. The monsoon breaks from 10 to 20 days after the *Nimánia*, towards the end of Hár; and agricultural operations commence at once with the sowing of the various autumn crops, except the cane and cotton which are already in the ground. Falls of rain at intervals during July—September bring the autumn harvest to maturity; and in September the final ploughings for sowing the Rabi crops (the land has been carefully prepared before) commence. From the middle of September to the end of October the Rabi sowings go on, and from the end of October to the middle of November the Kharíf grain crops are reaped, and the cotton pickings begin. This period of two months (15th September to 15th November) is much the busiest time for the cultivator. If the rainfall has been good, the Rabi sowings are completed early in November; but, if the rains have ceased too early, and there is not a sufficient amount of moisture for the sowings, they go on into December, and a late shower in October or November is then of the greatest use. The benefits of a fall at this time are celebrated in the popular couplet :—Je mính pia Díwáli, jia phus, jia háli, 'With rain at the Díwáli (end of October), a worthless fellow and a good cultivator are on equal terms'. The Rabi crops are brought on by showers at two periods of the cold weather, about Christmas and towards the end of February; and reaping begins from the Baisákhi day (1st Baisákh, about April 15th), and the threshing is

CHAP. II, A.

Agriculture

Agricultural calendar.

completed early in May. The sugarcane crop will not fit into the regular round of the farmer's year, and requires a special course of its own. It is sown in March, is cut and pressed after the middle of November, when the other Kharíf harvesting and the Rabi sowing have been finished. Cotton is sown before the regular Kharíf seed time, but it fits into the harvesting season, being picked at intervals during November—December.

The following is a calendar showing the ordinary round of agricultural work of the year :—

No.	Name of Month.		State of Agriculture.
	Vernacular.	English.	
1	Chet ...	March-April ...	Cane planted up to 15th. Cotton sowings all through the month; also melons up to 15th. Wheat crop irrigated once; and if rain falls, unirrigated lands ploughed for next Rabi. At the end of the month *sarson* and then barley reaping begin.
2	Baisákh ...	April-May ...	All Rabi crops ripe; gram, *berra*, wheat, reaped first in unirrigated and then in irrigated lands. Threshing begun. Cotton sowings and cane watered all through the month.
3	Jéth ...	May-June ...	Threshing completed, and grain and straw stored. Cotton sowings and cane watered.
4	Hár ...	June-July ...	Cotton sowings completed by 15th and cane watered. Rains commence by the middle or end of the month; and one or perhaps two ploughings for the autumn unirrigated crop given; and one in the land intended for the Rabi; *san* sown, and *moth*, *charri*, etc., sowings commenced.
5	Sáwan ...	July-August ...	Maize sowings commenced, and all Kharíf sowings should be completed by middle of the month. Then the ploughings for the Rabi commence, and three or four given. Kharíf well crops watered if necessary.
6	Bhádon ...	August-September ..	Ploughings for the Rabi and Kharíf crops watered if necessary.
7	Assoj ...	September-October	Rabi sowings begin in unirrigated lands. Gram from 1st to 15th, and then *berra* (wheat or barley with gram).
8	Kátak ...	October-November	Rabi sowings continued and completed, the irrigated lands last of all; and by the middle of the month Kharíf harvesting commences. Cotton picked all through the month. Kharíf crops watered in these two months as necessary.
9	Magar ...	November-December	Late Rabi sowings. Kharíf crops threshed in first half of the month. Cotton pickings go on; and cane pressing commences towards end of month.
10	Poh ...	December-January	Cotton pickings completed, and cane cutting and pressing goes on. Rabi crops irrigated.
11	Mágh ...	January-February...	Cane cut and pressed: Rabi crops watered. Lands ploughed for cane and for next Rabi if rain falls.
12	Phágan ...	February-March ...	Rabi crops watered; cane and cotton sowings commence from the latter end of the month.

CHAP. II. A.
Agriculture

Agricultural operations and implements.

The area that can be worked by a pair of bullocks depends on a variety of circumstances. Thus in the Bét the cattle are very poor, and cannot cover much land; and besides this a great part of the area in the upper Bét is cultivated twice every year. In the uplands it is the wells that make the difference, and, of course, the superior cultivation at them. In the Bét it appears from the returns that there is a pair of bullocks to every 6 or 7 acres of cultivation; while in the eastern and highly cultivated uplands the average is 8 or 10 acres; and in the Jangal it is about 17 to a yoke.

Particular operations: ploughing. *Gordon Walker, S. R.*, § 107.

The operations of agriculture differ in the various parts of the District according to the crops grown and the presence or absence of irrigation. In irrigated lands preparation of the land for a crop by ploughing can begin at any time. The field is flooded and allowed to dry partially, and then ploughed 5 or 6 times in succession. This is always the method of preparation for maize and wheat; but for cane the land is fallow (*sánwe*) during the cold weather; and it is often ploughed like unirrigated lands with the aid of the winter rains. For cane it is said that 8 or 10 ploughings are necessary, and as many as 15 or 20 may be given. Maize generally gets 5 or 6 and wheat, 4 or 5 in irrigated land. Where the two years' course is followed in unirrigated lands, there are 3 recognized seasons for ploughing. When the rain falls in Mágh (January-February) the field from which a crop has been taken in October is ploughed twice in opposite directions and left open to the action of the elements. If subsequent showers fall the cultivator may plough it again; but he has seldom time to do this, at all events where sugarcane is grown. The next ploughings commence when the rain falls in Sáwan (June-July); and the land then gets 3 or 4 at intervals, being reduced to a good tilth, and then smoothed with a *sohága* to keep the moisture in. In Bhádon, when the time for sowing approaches, one or two more ploughings are given according to the nature of the soil. The cold weather ploughing is well recognized by the people as the most important operation of all. The great increase in the fertility of the soil produced by its exposure to the air is easily explained on chemical grounds. The following popular couplet describes the value of the ploughings at the various seasons: *Siál soná; Hár rúpa; Sáwan sáwen ráwen; Bhádon be baguchia: tain kiún báha thia luchiá*, i.e., ploughing in the winter is gold; in Hár, silver; in Sáwan, indifferent; in Bhádon it is repentance: what is the use of your going about it, you lazy rascal? Where, as in parts of the Bét, the two years' course is not followed, winter ploughings are not possible. For the Kharíf only a couple of ploughings are given in the Rabi stubble, the seed being sown with the second. Ploughing is always commenced in unirrigated lands a few days after the rain has stopped, when the land is beginning to dry, this condition being called *vatar*. Three bullocks are usually taken out to the fields for the work, one always being at rest. The plough does not generally go very deep; in the winter ploughing, 6 or 7 inches; but in those of the rainy season

the tilth produced is not less than 8 or 10 inches, the plough going deeper each time.

Cultivation at the wells in the Dháia.

The Settlement Officer thus described the system of cultivation on wells in the Dháia:—"The cane is planted (March-April) and watered at intervals. Then the fields for cotton are treated in the same way, and most of the crop sown before the rains in April-June. When the rains begin it is time to sow the maize, and this is done from the middle to the end of July in land prepared in the same way as for the other two crops. The maize fields are those nearest to the village and the richest, what the people specially denote as *niái*, or land adjoining the site. The tilth produced by the preparation for these crops is very fine, being the result of successive ploughings and rollings. When the seed has been put down the field is banked off into small divisions (*kiárís*) with a rake (*jindra*) for the purposes of irrigation, each of these being flushed with water in succession. This closes the Kharíf sowings in irrigated land. After the first one or two waterings the fields are in the case of all three crops carefully hoed, the cultivators working through them steadily in a line, removing grass and weeds and loosening the earth, which is apt to cake from the watering and stop the growth of the plant. The amount of irrigation which these crops receive depends on the character of the rains. The cane has to be kept alive through the hottest part of the year, but luckily it is the only crop to be attended to then. After the rains have commenced the well has to be turned on whenever there is a break, and the necessity is more constant towards the end of the hot weather. It is when these crops have grown to their full height that the Samrála and eastern Ludhiána villages look their best, being surrounded to the distance of 200 or 300 yards by a magnificent growth of maize and cane eight or ten feet high. The maize is ripe by the end of October, and is reaped in the beginning of November. The sugarcane is generally ready for cutting about the beginning of December, and the cutting and pressing go on into March. The Rabi sowings of wheat and barley in irrigated lands are made in the beginning of November, either in fields near the site which have just borne a crop of maize or on more distant ones which have been lying fallow (*sánwe*) during the Kharíf. If there is not sufficient natural moisture, a watering is given from the well, and this is generally necessary. Several ploughings in succession produce, as in the Kharíf, a fine tilth, and the seed is sown broadcast, ploughed in, and the land rolled and banked for irrigation. The crop gets one watering a few days after sowing, and others at intervals till within a short time of its ripening, the number of waterings depending on the amount of rain. The Rabi is off the ground by the end of April and is followed by small patches of tobacco, onions, &c., which grow in April-June; but most of the land not under sugarcane is left alone for two months till the rain falls. When land bears two crops in the year, (or the equivalent one of cane) it is called *dofasli harsála*, *i.e.*, bearing two crops

CHAP. II, A.
Agriculture

every year. Where a fallow is usually given, the system is *ekfasli harsála*, *i.e.*, only one crop in the year is grown. This description of irrigated cultivation will apply to villages in the Jagráon Tahsíl if we cut out the sugarcane and cotton."

Other operations: sowing. *Gordon Walker, S. R.,* § 108.

Sowing of the ordinary grains is done either broadcast (*chatta*) or by drilling through a tube (*tor*) into the furrows. The latter method is almost invariably employed in unirrigated lands, where it is desirable to get the seed well under the surface in contact with the moisture; but there is no fixed rule in the matter. In irrigated lands and in the *mand* Bét the sowing is broadcast. The people will tell one that in former times when there was plenty of rain this was the case everywhere. The Kharíf crop is sown broadcast, more often than the Rabi. After sowing the furrows are generally left open, always so in the western parts; but in Samrála Tahsíl the field is sometimes smoothed. Maize and cotton are sown grain by grain by hand. Maize, it is said, should be so widely sown as to enable a man to run between the stalks. The method of planting cane is described on page 118 below.

Hoeing.

Hoeing (*godi, gudna*) is done with a *ramba* or trowel, the worker going through the field in a sitting posture, carefully cutting out grass and weeds and loosening the earth round each plant.

Hedging.

The lands round the village site are always carefully hedged in the Dháia with *kíkar* or *ber* branches fixed into the ground, and tied together with a rope of cane stalks which have been passed through the press (*thathe*). These hedges are strong, and keep out the cattle very well. They extend along the sides of the various roads leading to the site, and enclose the whole of the irrigated fields. At certain points there are openings with stiles to enable the cultivators to get to their fields. The people are more careful than in any other neighbouring District about keeping animals out of their fields. Each plot or collection of fields of sugarcane has a strong hedge of its own. The unirrigated lands are generally quite open, except in the Jangal villages, where the traffic is often kept to the roads by thick hedges of the prickly *mallah* or wild *ber*. In the Bét there is not much hedging of any sort, but the *niái* lands are more or less protected according to the disposition of the people.

Cutting, stacking and threshing.

Cutting is done with a sickle (*dátri*). The cutter goes through the field in a sitting posture, laying down the handfuls as they are cut. These are afterwards tied into sheaves. Maize and *jowár* are collected in a stock (*mohára*) in the field, the stalks standing upright. After a few days, as the cultivator has time, the heads are pricked off, the maize husked and collected in a heap, where they are beaten with a straight stick till the grain leaves the cob or head. The stalks are stored for fodder on the house-tops or elsewhere. In the case of the other grains the sheaves are collected in the field, the stack being called *láhan*, and thence taken to the *khalwára* or threshing floor at the village, generally on a cart,

CHAP. II, A.

Agriculture

Cutting, stacking and threshin .

The place selected for threshing is the hard, beaten ground, such as is found in the *goerah* of most villages. This is swept clean, and the crop is spread out on it in the form of a circle to the height of two or three feet, and the *phala* or thresher drawn round and round it by two bullocks driven by a man or boy sitting on it. By the action of the *phala* and the trampling of the bullocks the straw is broken up fine, and the grain separated from the heads and husk. The *phala* is a square frame made of four sticks, each about three feet in length, and joined at the corners. The inside is filled with *kíkar* or *ber* branches, covered with one or two sheaves of corn, on the top of which the driver sits. For winnowing a breeze is required. The mixed grain and straw is first tossed into the air with a pitchfork (*salang*); and the grain separated from the straw. But with the grain a good deal of straw and chaff is still left; and to get rid of this the grain is taken up in a winnowing basket called a *chhaj*, and allowed to fall gradually from above the thresher's head, the wind blowing the remaining straw and chaff away from the grain. Of all the operations described in this paragraph this last is the only one which the cultivator does not invariably do for himself. The ordinary cultivating proprietor employs no field labour. His women bind the sheaves, and he does everything else himself; but it is the custom in places for the Chamár or Chúhra to work the *chhaj*. There is none of the waste on reapers' wages and other allowances, such as prevail in many Districts. Even the village menials receive but a scanty share of the harvest.

Agricultural implements.

The implements at the command of the agriculturists are few in number and of the simplest character; but by their means the Jats, and few of the better cultivating Muhammadans, too, are able to show an agriculture that will bear comparison with that of most countries.

Agricultural implements and appliances.

Gordon Walker, S. R. § 103.

The plough (*hal*) universally used is the *mona* (*see* "Punjab Manufactures," p. 314), which is decidedly the best of the two patterns in use in the Province, being much stronger than the other. It is of course a primitive implement, with no mould board and no turning action; but it opens the soil to a depth of eight or ten inches, and produces a fine tilth. The various parts of it are called *mona* (the block), *thail* or *arli* (the handle), *phála* and *cháo* (share and coulter), *halas* (beam). The bullocks are yoked by a *panjáli*, or frame-work passing over their heads into which the *halas* is fixed. To the plough is attached, when necessary, a *por* or tube made of bamboo hollowed, with a leather mouth, through which the seed is drilled. Ploughing is followed by rolling with a *sohága*, a beam of wood to which the cattle are yoked, the men standing on it and driving. The *sohága* is also used in stiff soils for clod crushing. *Paráin* is the goad for driving the bullocks. *Jindra* is a rake without teeth, worked by two men, from one side with a handle, from the other with a rope. It is with this that the irrigated lands are ridged off into *kiárís* or plots for irrigation. The *kahi* or mattock is mostly

CHAP. II, A. Agriculture

Agricultural implements and appliances.

used in making the irrigation channels (*ádh*). The hoeing is done with a *ramba* or *khurpa*, a trowel with a crooked handle. The crop is reaped with a *dátri* or sickle, and threshed with a contrivance called *phalla*, and winnowed by being thrown into the air with a pitchfork (*salang*) or from a basket called *tangali*. The other chief implements are the *salang*, a wooden fork with two prongs used as above, and also for making up hedges, &c.; the *kará*, an iron rake or cutter, used in place of the *jindra* and worked with bullocks in very stiff soil for levelling, &c.; the *kohári* or common axe for cutting wood; *gandása*, an axe or chopper with a long handle, the blade being a thin piece of iron about an inch wide and six inches long fastened to the end by two spikes of iron; a *gandási*, the same with a short handle for chopping fodder; a *gandala* or stick tipped with iron for making holes into which the branches set up in the hedges are set. The principal parts of the well-gear are the *charsa* or bucket; the *lao* or rope with which it is raised; the *páoni* and *kohir* wheel on which the rope works and fork in which it fits. Water is raised from tanks, &c., by a basket lined with leather worked by two men with ropes (called *dal*). The sugarcane press is called a *belna* or *kulhári*, and a description of it will be found elsewhere. Small carts are used by most cultivators for bringing the harvest from the field, carrying manure, &c. They are of the ordinary pattern of country carts, but do not go beyond the village.

Agricultural partnerships.

In practice 20 or 30 acres are cultivated by a partnership, which may be temporary, the land of the several proprietors being separately owned; or the holding may be really a joint one, belonging to a family containing five or six able-bodied men. A partner is called a *sánjhi*: the *sánjhi* may contribute only his labour, in which case he is called *ji-de-sánjhi*; or he may also contribute cattle, when he is called *sánjhi* simply. The share of produce that the *sánjhi* receives would depend on what he contributes, each man and each beast counting as a unit in the calculation. Thus a proprietor may have three bullocks and the *sánjhi* one; and they would together make up two ploughs in unirrigated lands. The *sánjhi* would in this case get two out of six shares in the produce or one-third; and the proprietor would probably pay the revenue and supply the seed, &c.; but this is a matter of agreement, and the terms vary a good deal. Sometimes several proprietors club together for the better working of their well land, jointly irrigating the fields of each in turn. It would not be possible for one man to take his own turn at the well, which requires at least four bullocks and three or four men at a time. This gives the result that large patches of cane, maize, &c., are grown, several fields being clubbed together for each crop. In the Jangal villages, where agriculture is in its simple stage, things are different. The division of the cultivator's labour is easy enough, and the task of cultivation is very light. From July to November the cultivator is more or less busy between sowing and reaping the Kharíf, and preparing the land for and sowing the Rabi. But with the Rabi in

Gordon Walker, S. R., § 127.

Gordon Walker, S. R., § 111.

CHAP. II, A. Agriculture. Agricultural partnerships.

the ground there remains almost nothing to be done till it is reaped; and after that absolutely nothing for some months. In Jagráon, where there is not much irrigation, the labour is also light. But in the highly cultivated villages of the east of Ludhiána and in Samrála, the work of cultivating a holding is incessant, and wearying alike to man and to beast. There is no rest all the twelve months except for a few days in the rains; and there is so much to do about the months of October-December that the cultivator often finds that he cannot get through it all; and loses his chance of sowing his Rabi in time, or neglects some other operation.

Unirrigated Dháia cultivation. The two years' course. *Gordon Walker*, *S. R.* § 105.

In the Dháia unirrigated lands there is a very well established system of cultivation. To explain it, we must begin with land from which a Kharíf crop has just been taken. When the rain falls in *Mágh* (Jany.-Feby.) the field is ploughed and left open to the action of the elements. If the cultivator has time, he may plough it again whenever there is a fall of rain, but it is not often that he can do this. When the autumn rains fall, ploughings again commence in July, and the land gets a number of them in succession, and is prepared for the Rabi sowings, having had a year's fallow, and being reduced to a very fine tilth by the final ploughings in September. Sowings ordinarily commence from the middle of September, the gram being the earliest crop in the ground, and being followed by wheat and gram (mixed), wheat, barley, in this order; they go on in ordinary years till the beginning of November, and till much later if the rainfall is bad. The fields are weeded at intervals, *piázi*, thistles, &c., being carefully removed. The crop ripens in April, and harvesting begins about the Baisákhi day (10th-15th April), a little being done before that. When the monsoon rains begin, the land out of which this Rabi crop has been taken is ploughed once, and the Kharíf pulses and millets sown in it is without further preparation, as none is really necessary. The Kharíf ripens at the end of October. The course of cultivation sketched above extends over two years, in the first of which the land bears no crop, although really the Rabi of one year is followed by the Kharíf of the next; but of course the whole of a cultivator's land does not go through the various stages at the same time. Part of it will be under crop at the time that the rest is enjoying a fallow. The manner in which the lands of a village are generally distributed amongst the community will be noticed in the Section on Tenures (Chapter III), each sharer having a portion in each of the blocks into which the lands are divided, and his field being scattered all over the area of the village or sub-division. It is obviously convenient for the people of adjoining fields to have their land under crop or fallow at the same time, and in fact the members of the community always pull together in this matter, with the result that the village area will be found mapped out into blocks of fields which are either cropped or fallow at the same time. In small villages there may be only two such blocks, but there are usually a good many. Besides the

CHAP.II,A.
Agriculture

advantage of the system as best suited for the land, it has others incidental to it, such as the convenience of being able to graze the cattle over a large piece of fallow, and the facilities for watching the crops.

Other systems.

This system of cultivation (which has been named *dofasli-dosála*, or the two years' course, the land yielding two crops in two years) may be said to extend generally over the Dháia; but in the light soils immediately over the ridge or high bank (the Lower Dháia Assessment Circles) the area under the Rabi is much larger than that under the Kharíf, because for various reasons the former found to pay better and a large proportion of the land is under Rabi every year (*ekfasli harsála*). In the Bét and other places, where this course is not followed, there cannot be said to be anything resembling a rotation, for there is only one crop to be grown. In irrigated lands there is very little approach to what could be called a regular course, for the crops here too are limited Still the people very seldom grow their sugarcane in the same field year after year; but prefer, if possible, to have it following cotton. Some fields have undoubtedly been producing maize followed by wheat or barley, for centuries one may say, but the area so treated is limited to the fields touching the site. An ordinary manured field will generally go through such a course as this:—

Rotation of crops. *Gordon Walker, S. R.* § 109.

Year.	Rabi.	Kharíf.
First	Fallow	Cotton.
Second	Fallow or fodder crop ...	Cane.
Third	Fallow	Cotton.
Fourth	Fallow or fodder crop ...	Cane.
Fifth	Fallow	Maize.
Sixth	Wheat	Do.

Outlying fields are not so heavily cropped as this; and those in which maize and wheat are grown do not generally bear cotton and cane. In fact the cultivation of the two sets of crops is kept quite separate on many lands. Of the total crops harvested in 1900-01 14 per cent. were grown on twice cropped land.

Gordon Walker, S. R. § 106.

In the Bét the *dofaslí dosálá* system of cultivation is followed for unmanured lands in villages at a distance from the river: but even here the area under wheat is larger than that of the Kharíf. In this case all the land in turn is generally put through the two years' course. Thus a field will bear a Rabi for three or four years in succession, and then this will be followed by a Kharíf, to which will succeed a year's fallow. In the moister lands near to the river a Rabi is grown year after year. The unmanured Kharíf crop is nowhere of much importance in the Bét. The newly recovered lands in the *mand* are ploughed up roughly the first year; and *massar* or some other poor crop sown, often without removal of the *pilchi* and reeds. Next year the land receives better tillage and is

CHAP. II, A.

Agriculture

Rotation of crops.

cleared, the crop being a mixture of *massar* with wheat or barley; and in the third or fourth year wheat alone is grown, the soil having become quite clean. The Rabi in these new moist lands is often preceded by a Kharíf of rice, *másh*, maize, &c. As a whole the agriculture of the Bét is much inferior to that of the Dháia. There are no light soils like the *rauslí* of the uplands, and the land requires much greater labour, and is naturally foul with weeds. Besides this the Muhammadan proprietors, except the Aráíns and Awáns, are generally rather poor cultivators. The fields immediately round the site, or at the wells where there is irrigation, are kept clear enough; but in the outlying ones the crop will generally be found choked with weeds, the result of insufficient ploughing and failure to attempt keeping them down.

Exhaustion of the soil. *Gordon Walker, S. R.* § 106.

The usual complaints are occasionally heard about exhaustion of the soil; but they are not pressed upon one, and there is little foundation for them. When it is said that the land does not yield so much as it did 200 or 300 years ago in the time of Akbar or before it there is no reason for dissenting from the proposition. It was then only being brought under cultivation; and there was no necessity for cropping any of it regularly. Thus three out of the four kinds of land enumerated in the Aín-i-Akbari (Gladwin's Translation, Volume I, Part III) are fallow; and revenue was only paid for land when cultivated. The waste probably exceeded the cultivated area, and a new piece could always be brought under the plough when a fallow was required. The rates of yield given in the Aín are certainly high; but they are for the whole of India, and are not greater than would result if fallows were given to the land now. Thus the yield of wheat is set down at 9 to 18 maunds a *bígah* (our standard), and those shown in the margin are not after all very heavy, taking both irrigated and unirrigated. It was in the nature of things that when cultivation had fully developed, a lower standard of productive power should be reached where manure was not used; but there is nothing to show that within recent times, such as we have information concerning, this standard has decreased. The well lands, we know, will yield according to the amount of manure put on them; and the system of cultivating the unirrigated is in most parts of the District sound, and not likely to cause deterioration.

		Maunds.
Gram	...	7¼ to 13
Gur	...	7½ „ 13
Máng	...	3¾ „ 6½

Actual cultivation of a holding. *Gordon Walker, S. R.,* § 111.

From what is said in the Section on Tenures (Chapter III), about the constitution of villages, it will be evident that nothing resembling a farm according to European ideas exists, as it does in other parts of the Province where the land of a cultivator lies in a lump, generally round a well. The village is made up of a number of holdings owned by separate members of the community; and each owner has in his holding a share in every class of land situated in all parts of the village or sub-division. The operations have in the preceding pages been described separately, but every proprietor has to

CHAP. II, A. Agriculture. Actual cultivation of a holding.

distribute his time and labour over the various crops, which are of every description, growing in his lands. Thus in the Samrála upland a proprietary holding consists of about 6 acres of land, of which $3\frac{1}{2}$ (roughly) will be unirrigated and $2\frac{1}{2}$ irrigated. Of the former again half will be under fodder for the cattle and half under the common food grains; while of the irrigated land less than one acre will be under cane and cotton, and the rest under maize and wheat.

Cultivation in the Bét: manured. *Gordon Walker, S. R.* § 106.

In the eastern portion of the Bét there is no irrigation, but the soil is naturally moist, and the cultivation of manured land is of the same nature as that of irrigated land in the Dháia, cane, cotton and wheat being the crops. The *niái* area generally lies round the site, but not as a matter of course, for there are no wells to make it necessary that the superior crops should be raised in a fixed area, and we accordingly find that it is very often shifted. In fact two crops of sugarcane can be grown in any land that gets sufficient manure, though it is generally convenient to have these crops near to the village. Except for the waterings, the description of the irrigated cultivation of the Dháia will apply to the manured lands of the Bét. In the western half of the Bét there is a great deal of irrigation, and the superior cultivation is all at the wells. Maize followed by wheat is grown as in the uplands, and there is also some very fine market garden cultivation, especially under the city of Ludhiána, from which an ample supply of manure is drawn.

Manure. *Gordon Walker, S. R.* § 110.

In the description of the use of manure as practised in the District, which was furnished for the Famine Report of 1879 (page 251), it was stated that 53 per cent. of the irrigated land was constantly, and 47 per cent. occasionally manured; while of the unirrigated cultivation only one per cent. of the irrigated area received occasional manure; that some 33 per cent. of the irrigated area grew double crops; and that the quantity of manure used per acre was 100 maunds in the land occasionally, and double that weight in land constantly manured.

The fields just round the site receive natural supply of manure by being made the receptacle of the village filth. The litter of the cattle is collected by the cultivators, each having his own heap, in hedged enclosures outside the site. The greater part of the droppings have been carefully removed for fuel, and the refuse consists of byre sweepings. By the commencement of the autumn rains these heaps have attained some dimensions, and the rains assist the decomposition of the mass, which is carted or carried in baskets to the fields intended for maize, spread over them and ploughed in. A top dressing is afterwards given when the maize has sprung up. For the Rabi following a little manure is also ploughed in; but the effect of that used for the maize lasts for the Rabi, as it is not really ready when put on, and some more is spread over the surface when the wheat is two or three inches out of the ground. The winter

CHAP. II, A.
Agriculture
Manure.

collections of manure (November to March) all go for the sugar-cane; and they are generally in very fair condition, having been rotting for four or five months, and exposed to the rain. Top dressings are also added till the cane is about three feet high. This description will apply to irrigated and to *dofasli* Bét lands alike. Unirrigated lands in the Dháia never get manure, as they are much too dry to stand it. In those parts of the Dháia which are irrigated by the canal manure is much used, and also in the western Jagraon and Jangal villages which have a magnificent supply. The manure is rather inferior according to our ideas as the most valuable part has been taken out; but it has a great effect on the soil, and is much valued. It would be impossible to raise cane or two crops in the *niái* land without it. The refuse of the town of Ludhiána is very fine manure. It is bought up by the Bét villages just below, in which there is some first rate market gardening done in what is really poor soil.

Population engaged in agriculture.

Out of the total population of the District 370,329, or 55 per cent. are directly dependent upon agriculture, and of them 63 per cent. are actual workers, the remainder being dependents. About 22,000, or only 6 per cent. do not cultivate themselves but let their land on rent. The rest are almost all actual cultivators, cultivating owners numbering 274,526, occupancy tenants 3,886, tenants-at-will 25,211 and partners in cultivation (*sáhnji*) 38,415.

Agricultural labourers.

Only 4,200 persons are returned as agricultural labourers in the District, and of these only 1,543 are farm servants (*kámás* paid monthly or half-yearly) and 2,657 field labourers paid daily wages. These figures are undoubtedly much below the mark.

The subject of the employment of field labour other than that of the proprietors or tenants themselves, is thus noticed in answers furnished by the District Officer and inserted in the Famine Report of 1879 (page 714):—

"The field labourers are never exactly hired. They are paid by a share of the produce, usually one-fourth, and they are employed by the season. They are generally of the menial classes—sweepers, chamárs, weavers, blacksmiths, carpenters, &c. When they cannot get field-work, they exercise their handicrafts. In the isolated instances in which men are hired by the month, they are paid Rs. 3 per month. Their condition is distinctly inferior to that of the self-cultivating poorer agriculturists. They usually get an advance from the *zamíndárs* which is deducted in grain at the harvests. They get petty loans from the village *baniás*, but as they have not the security of the land to offer, the *baniás* do not trust them with much."

Gordon Walker, S. R., § 127.

A *litiá káma* is a farm labourer kept by a proprietor, generally because the latter cannot for some reason work his plough himself. The *bitiá káma* gets Re. 1 to Re. 1-8 a month, and his food and clothes from the proprietor, but has no interest in the produce.

CHAP. II, A.
Agriculture

Table 19 of Part B gives the area under the principal crops by Tahsíl.

Principal staples.
Table 19 *of Part B.*
Gordon Walker, S. R. § 95.

Sugarcane, maize, cotton and wheat are in the uplands only raised in land artificially irrigated, the unirrigated entries for these crops being for the Bét. The distribution of the various crops over the District is as follows: Sugarcane is grown in the first twelve or fifteen miles of the Bét, and in the uplands of Samrála Tahsíl, and of Ludhiána, except in the Jangal villages and in the country about Pakhowál; but the proportion is higher in Samrála, and gradually decreases as we go westwards. There is also very little of it in the sandy tract along the high bank, but the lands newly irrigated by the canal now grow sugarcane where formerly only the coarsest grains were sown. Cotton is generally grown where cane is, and also further west. The other crops are grown everywhere, except that in the uplands maize and wheat require irrigation. The autumn unirrigated crops, pulses and fodder, are the same throughout the District; but in the Jangal villages *bájra* sometimes takes the place of *jowár* because it is more hardy. So too wheat mixed with gram is the unirrigated Rabi crop in the eastern parts where the rainfall is heavier. But the canal has put the arid tracts of Jagraon on a level with the best soil in the District.

Sugarcane.
Gordon Walker, S. R. § 112.

The importance of sugarcane is much greater than is indicated by the area it covers, for the value of the yield is about ten times that of an ordinary unirrigated crop, and the total annual value some Rs. 12,00,000. It is almost entirely grown for the manufacture of some saccharine product (called *kátha* cane); but in a few villages the *ponda* or eating variety is raised. *Kátha* cane is grown in the irrigated lands of the Samrála Bét (where it occupies 12 per cent. of the whole area), and of a few Ludhiána villages; and at the wells in the uplands of Samrála and the eastern portion of Ludhiána, the best crop being perhaps that raised about Malaudh. It is of three sorts: *chan*, a soft, juicy cane which grows to a considerable height, has a red colour and long joints (*pori*); *dhaulu* does not grow so high, has small joints, and is of a green colour and less juicy; while *ghorru* is an inferior sort, with many joints and a great deal of leaf at the top, very hard, and yielding much less juice than the others. The first of these is the real cane, and the other two are mere degenerations; no one ever keeps a *ghorru* stalk for seed; and *dhaulu* is only planted if there is not enough of *chan*. The cultivation in the Dháia and Bet is much of the same description. Cane is sometimes the only crop in a field for two years, especially in outlying ones, where the supply of manure is limited. It may also be grown with the aid of a great deal of manure in land just cleared of another crop of cane, or of a Rabi crop of wheat; but, as a rule, it occupies the land for three harvests following a Kharíf of cotton. Cane is not grown in the fields next to the site, but generally at a little distance. It is always planted, if possible, in land that has been cropped with cotton; and in the Upper Dháia Circle of

Samrála we find that the area under the two crops is nearly the same. The rotation is generally—

CHAP. II, A.
Agriculture
Sugarcane.

First year	... Ploughing in the Rabi	... Cotton in the Kharíf,
Second year ...	... Fodder, &c., in the Rabi... ...	... Ploughing in the Kharíf,
Third year ...	... Ploughing and cane sown in the Rabi ...	Cane in the Kharíf,

and back again to cotton, giving a cane, a cotton and a fodder crop with perhaps a little grain in three years. The cane field is selected next to the well, as the crop has to be kept alive during the hottest months and always gets more frequent waterings than any other. The land is ploughed not less than 7 or 8 and up to 20 times, the more ploughings the better. All the available manure has first been spread over the field, and is ploughed in. The planting is done from the middle of Phágan to the middle of Chét (March). The seed consists of joints (*pori*) cut from last year's crop, which have been kept covered up in pits in the field. In planting them one man goes along with a plough and another follows, laying down the joints at intervals of 6 or 8 inches in the furrow. The plough in making a new furrow covers up the former one; and the whole field is finally rolled. The canes spring from the eyes (*ankh*) of the joint. About 4 or 5 canes will come of one joint. Then follow waterings at intervals of 7 or 8 days in the uplands, and hoeings after each of the first few waterings. The fields are very carefully protected by stout hedges. In the Bét there are no waterings, and seldom any hoeings: and the fields are quite open. The cane in the uplands grows to a height of 8 or 10 feet, and when it becomes heavy, is protected by several stalks being tied together. In the Bét the height is only 5 or 6 feet, and this precaution is not necessary. There is altogether a great difference in the modes of cultivation, Dháia and Bét, due principally to the difference of natural conditions, and partly to the different habits of the cultivators, those of the Dháia being industrious Jats, and of the Bét apathetic Muhammadans, of the Rájpút and Gújar tribes principally. The method of extracting the juice is much the same in both tracts. Cutting goes on all day in the field, each cane being stripped, and the flag at the top with the small joints immediately below it being removed. In the evening the seed joints are separated from the flag (which is then used for fodder or for feeding the boiler furnace) and tied up in bundles for seed. The cane is carted to the *belna* or mill, which stands just outside the village site. The processes of manufacture employed in the Bét and in the Dháia or uplands are quite distinct, and an account of the latter will be given first. When the season for pressing approaches (November to March) the *belna* or mill and other appliances are put in order. The mill used throughout the District is of the sort described in "Punjab Products." The day before the cultivator's *vári* or turn at the mill, the cane is cut and stripped in the field, and the parts reserved for seed set aside. The cane is then carted to the mill in the evening, and next day it is pressed and the juice extracted. Two men sit at opposite sides of the rollers passing through the cane, which is tied

Gordon Walker, S. R. App. XIII, § 4-5.

CHAP. II, A. Agriculture Sugarcane.

up in bundles of 40 or 50 canes each. The juice runs into *cháttis* or jars of earthenware placed beneath the rollers to receive it. As the jars are filled the juice is taken into the boiling-house, and the boiling commences. At one end of the boiling-house there are two pans of iron, about 4 feet in diameter, placed over a flue heated by a furnace fed from the outside of the building, the fuel being the refuse stalks, heads, &c. The pan nearest the wall is lower than the other, and is fixed, and into this the juice is poured. The second pan is higher and movable. When the juice has been boiled and evaporated in the lower pan for half an hour, it is lifted with a ladle into the upper pan, which is cooler: and there boils more slowly till it is ready, generally in about an hour. The pan is then lifted off, and the juice stirred till it is cool, when it is poured into a flat dish of earthenware, where it lies to the thickness of about one or two inches. It is, when cool, scraped up with a wooden scraper and is either granular, in which case it is called *shakar*, or viscous (*gur*). If *gur*, it is made up into balls of about 4 seers weight. *Shakar* is put into earthenware jars. It depends entirely on the quality of the juice whether the produce takes the form of *shakar* or of *gur:* and this depends again on the soil and the character of the season. In the above process no chemical appliances are used; but in places lime and water are poured into the boiling juice to clean it, the scum being removed. This is generally done where *shakar* is produced, and has the result, it is said, of giving it a light colour, which is a recommendation. The total number of men employed on pressing and boiling is generally 7: two to drive the bullocks, two to feed the mill, and one to hand the cane to the feeders, one in the boiling house, one to feed the furnace outside. The last is a *Chamár* or menial; but the other 6 are all of the cultivating class. The Hindu Jats of the Dháia not only make but sell at their own price and when they choose their *gur* and *shakar*.

Ibid: § 6–8.

The state of things in the Bét, where the population is all Muhammadan, is very different. The process of manufacture there is of two parts: the juice is extracted and boiled at the *belna* in much the same manner as in the Dháia; but takes the more liquid form of *ráb*. Only one pan is placed on the furnace; and, when two jars are filled with juice they are emptied into this through a straining cloth, and the juice boiled. Water boiled with *sakhlaie* bark is added for the purpose of purifying the juice, and the scum is removed as it rises. The boiling takes about 2½ hours. When the boiling is completed the juice, now in a semi-liquid state and called *ráb*, is taken out in a ladle, and put into an open vessel of earthenware till it cools, when it is poured into high jars (*matti*), the mouths of which are then closed with mud. These jars hold about 3½ to 4 maunds (pucka weight) of *ráb*. The boiler, called *rábi*, is always a man of the shop-keeping class, boiling being something of an art. The other men at work are, as in the uplands, cultiva-

tors or village menials. But the cultivator has really nothing to do beyond extracting the juice. The second part of the process of manufacture is completely in the hands of the shop-keeper class, the head-quarters of it being in the town of Máchhiwárá, which lies just over the Samrála Bét. The *ráb* is taken off in the jars to the shop of the purchaser, in the back room of which, in one of the corners, a space (*khánchi*) four or five feet square is walled off to the height of about four or five feet. At the bottom of this, about a foot from the ground, a rough strainer is made of sticks fixed in the walls and running across at intervals, on the top of which are placed reeds and on the top of these a coarse cloth. The sides of the *khánchi* are lined with *chitái*, or matting made of river grass. When 20 or 30 jars have been collected the *ráb* is poured into the *khánchi* and left for twenty or thirty days, during which the *sírah* or more liquid part drains off into a receptacle. The *ráb* is then covered with a weed that grows in the water, called *jála*, put on to the depth of two or three inches (see name at p. 308 of "Punjab Products"). This is changed every three or four days for about a fortnight. The effect of this covering and the straining is to clarify the mass; and, as the upper part assumes a light yellowish colour, it is taken off, and the remainder covered up again. The produce thus taken out is put in the sun and trampled. It is then called *khánd*. Another and a superior form of produce is *búra*, which is thus made. The *sírah* is strained off as for *khánd*, and the *khánd* is mixed with one-fourth part water and boiled for evaporation in a pan for half an hour. It is then taken off and stirred till cool, when it takes the form of *búra*. The *sírah* or *lét* (molasses) is boiled and kept in jars till the rains, when it is treated like *ráb*, being put into a *khánchi*: or, if it is not good enough for this, it is used in its liquid form for sweetmeats, &c. Detailed information regarding the prices and the course of trade will be found in Appendix XIII to Mr. Gordon Walker's Settlement Report from which the above is taken. Iron presses are now becoming popular. They can be worked by two men and two bullocks a piece and in 24 hours can press the average crop of one *bígah*. These presses can be hired for Rs. 8 to Rs. 25. The *gur* prepared by these iron presses is inferior; it is blacker and more liquid than that produced by a wooden press. It is, however, very much less expensive to make.

Sugarcane is the crop invariably converted into cash, and may be said to be the revenue-paying one. It is very valuable, otherwise it could never have held its own so long, for it occupies the land the better part of two years; and in the Dháia the labour of cultivation is incessant. Bullocks stand the work at the wells and in the *belnas* for only a few years; and the cultivators are never tired of complaining of their hard life. These objections make it a dangerous crop to any but the most thrifty classes. The Jats keep out of debt because it is in them to do so; but the Muhammadan of the Bét will tell one that he is a victim of the sugarcane crop, and

CHAP. II, A. Agriculture

he is right to some extent, for he has not the qualities which would enable him to subsist while his crop is growing.

Sugarcane.

Ponda sugarcane is now raised in a good many villages under Ludhiána. It was formerly confined to two or three Aráin villages; but the cultivation has spread. This crop requires a great deal of manure and constant attention; and pigs and jackals are very fond of it. But the canes have a ready sale in the Ludhiána bázár, and the crop is worth at least from Rs. 100 to 150 an acre; and is often bought for that amount as it stands by the green-grocers.

Cotton. *Gordon Walker*, S. R. § 113.

Cotton is sown during the months Chét-Hár (April-June) in fields which have had a Kharíf or a Rabi harvest. The best crops are raised in land which has enjoyed a fallow in the Rabi (*sánwe*). The yield is better because of the fallow, and also because the sowings are early. It is not usual to have cotton immediately after a Rabi, and where this is done in Hár the yield is poor. The crop generally follows cane, as explained in the last paragraph. The number of ploughings required is not so great as in the case of cane, and 3 to 4 are sufficient. In the Dháia it is grown in the unirrigated lands of a few Samrála villages; but mostly in the well lands, and in *dofasli* or *niái* fields of the Bét. Where grown at the wells, irrigation is necessary before sowing, unless there have been stray showers of rain in April-June, as there very often are. Two or three hoeings are given. After the autumn rains the waterings are very rare. Pickings commence in October, and go on to the end of November, being eight to ten in number, at intervals of a week. The pickings are done by the women (at all events among the Jats); and the cotton and seed are separated by means of a gin or *belna*. Of the seed (*varéwan*) part is kept for sowing, and the rest given to the cattle. It is a favourite food for the well cattle in the cold weather, and for milch kine at all times. *Til* is often grown with the cotton. It is also very usual to run a plough through the field while the plants are standing and sow barley, carrots, *metha*, &c., generally for fodder; but there is very often a decent crop of barley caught in this way. A cotton field may have in this way three or four crops in it at one time. There are no varieties of cotton. The usual short stapled sort of the Punjab plains with bushes 3 or 4 feet in height is grown everywhere. Two factories for cotton-ginning and one for cotton-pressing have been opened in Khanna since 1900, and an increase in the area under cotton may therefore be expected.

Maize. *Gordon Walker*, S. R. § 114.

Maize is sown at the end of July (from the beginning to the middle of Sáwan) after 3 or 4 ploughings with a great deal of manure. The best crops are raised in the fields next to the site. It receives the usual number of hoeings (3 or 4), and springs up very fast, reaching a height of 7 or 8 feet and growing as well in Bét, irrigated and unirrigated, as in Dháia land, provided that it gets sufficient manure. The crop ripens in 60 to 70 days, and is

reaped at the end of October and beginning of November. There are generally two to four cobs on a stalk. Maize is the best crop of all for the cultivator. It does not require much labour in preparation, and few waterings are necessary if the rains are good. The yield is very great, the value of the crop being next to that of cane, while it has the advantage of a very speedy return. The *zamíndár* lives on maize for some months, and it is a good, wholesome food. The stalks are also very fair fodder, and last for some time. The ordinary maize of the Dháia has cobs about 7 or 8 inches in length, with a fair-sized seed of a yellow colour. A species known as *batálaň* is grown in the Bét. It has a shorter cob and a smaller grain, but it is said to ripen in 2½ months to 3 of the ordinary maize, and for this reason the seed is used by the Dháia people when there has been a break in the rains and sowings are late.

CHAP. II. A.
Agriculture
Maize.

Wheat is grown in the unirrigated lands of the Bét and the canal lands and a few unirrigated parts of the Dháia; and at the wells everywhere. It is sown during October and November, as the cultivator has time for it; the unirrigated crops being taken first, so that the moisture be not lost. The unirrigated lands, where not manured, have received a number of ploughings in the cold weather, or rather ought to have, for the ordinary Muhammadan cultivator of the Bét seldom does his duty to the soil. In the manured lands of the Bét and the irrigated Dháia the crop follows maize, in which case the preparation consists of 2 or 3 ploughings; or, if the land has had a fallow, there have been winter ploughings as in the ordinary unirrigated lands. When the crop has sprung it receives in *niái* lands of the Dháia a top dressing of all the manure then available, and several waterings and hoeings. The waterings are at intervals of 15 days at least. The crop is reaped towards the end of April or the beginning of May. The grain is eaten or sold, and the straw used as fodder for bullocks.

Wheat.
Gordon Walker, S. R. § 115.

The wheat grown everywhere is the bearded red variety common to the Province, and is called *kanak* or *gheon* or *lál-kanak*. The grain of the Bét is said to be better than that of the Dháia (to a native's taste), as the flour is said to be more sticky when moistened and pleasanter in flavour. It appears to be a more moist wheat, like the English. The varieties to which special names are given are uncommon, and only grown in irrigated land. They are:—*mundi*, a beardless red wheat with a slightly higher stalk and a larger grain than the common kind. The yield is said to be better; but the straw is hard and not good for fodder. The flour is much the same. *Dudh-khání* or *dudhi* is a white wheat, also beardless, much the same in appearance as the last. The flour is very white, and much used by *halwáís* for making sweetmeats. The straw is said to be hard and poor fodder. *Phaman* or *bad kanak* is a very tall variety, growing to a height of 4 or 5 feet in good well land. The grain is large, but said to be hard and not good for flour, and the straw is refused by the cattle. The yield is superior to that of any

Varieties of wheat.

CHAP. II. A. Agriculture

other sort. It does not appear what foundation there is for the preference for the common wheat, or how much it is due to prejudice; but the use of these varieties is not spreading.

Barley. Gordon Walker, S. R. § 116.

The cultivation of barley does not differ from that of wheat. There are no recognized varieties, except a sort called *Kábuli jáu*, which is grown in places, and has a whiter grain than ordinary barley. Barley is much hardier than wheat, is sown later and ripens earlier, being in the ground about 5 months to 6 of wheat. Wheat cannot be sown later than November, but barley will germinate, and give some yield even when sown as late as the end of December. When the moisture in the soil has dried, and there has been no fall of rain in October and November, the *zamíndár* will go on in hope of showers as late even as Christmas; and if there is rain at this time he will sow late barley (called *Kanauji*), and get a very poor crop, which gives a yield, perhaps not one-quarter of a good one, but still something to keep him alive. Sowings are occasionally as late as January 10th; and if the subsequent rains are heavy the yield of grain may be a very decent one, though the stalks are never more than 1 to 1½ feet high.

Gram. Gordon Walker, S. R. § 117.

Gram is not usually sown by itself. It appears to require a good deal of moisture to make it germinate, though the plant is hardy enough afterwards; and it is only in a year of heavy rainfall that a large area is sown with it alone. The people say that the crop depends entirely on the rain of Sáwan, *i.e.*, the earliest monsoon rains, and that if these are scanty, however good the subsequent falls may be, the crop will come to nothing. The sowings commence from mid September and go on for two weeks only, as it is useless to sow it after the first week of October. It is reaped, first of all the spring crops, early in April. Gram is not grown in the Bét, the soil not being suitable.

Mixed gram and wheat or barley.

The great unirrigated crop of the Dháia is a mixture of gram with either wheat or barley, sometimes with both, and called *berra* in all cases. It is sown in October, not later than the end of that month, in land that has had a year's fallow, and been prepared during the winter by ploughings. The seed is drilled in, and every eighth or tenth drill is sown with *sarson* or rape. The *sarson* ripens first, and is cut at the end of March, the rest being ready about April 10th. The reason for sowing two crops together is clearly that both of them are not likely to fail in the same season. The *sarson* is something over and above the regular crop of the field; and, if a success, gives a handsome return. In some years the wheat or barley is the better crop, and in some the gram; but it must be a very bad year in which both, as well as the *sarson*, fail. The *berra* is cut and threshed as one crop; and no attempt is made to reap the grains separately. The mixed grain is sold, and people seem to prefer the meal made of it, because it is cheaper than pure wheat, and still has some in it; but it is easy to separate the

CHAP.II,A.
Agriculture
Mixed gram and wheat or barley.

wheat and gram by means of a *chánna* or iron sieve, which allows the wheat grains to pass through, and not the gram. But this is very rarely used as yet. *Sarson*, besides being grown in the *berra* fields, is also sometimes cultivated in irrigated patches as a single crop. *Táràmíra* (*Brassica eruca*) rarely takes its place. The *sarson* is either made into oil in the village presses, or brought to market and sold in seed. Almost every field of *berra* yields *sarson* too; but in our crop returns and produce estimates the land is only shown as under the former, as it is impossible to estimate the areas and yields separately.

Kharíf pulses and millets.
Gordon Walker, S. R. § 118.

The Kharíf pulses are very numerous, the principal ones sown in the Dháia being *moth* (*Phaseolus aconitifolius*), *mung* (*P. Mungo*), *másh* (*P. Roxburgii*) with inferior varieties called *mungli*, *máhri*, &c. These are sown sometimes in July in land that has had a Rabi crop, and reaped by the end of October. Light sandy soils are well suited to them, and a mixture of one or two of the varieties is the general crop. The yield of grain is seldom very good; but the straw is very strengthening fodder. Except in the lighter soils, which will not bear it, the Kharíf crop of the uplands is a mixture of the millets and these pulses. The great millet is either sown wide, when the object is to develop the heads for grain (*jowár*) or thick with a view to the fodder (*charri*). The times of sowing and reaping are the same as for the pulses. Where, as in the eastern portion of District, there is a great deal of well irrigation, and the well cattle are dependent on the fodder raised in the unirrigated land, the crop is always the mixture of *moth*, &c., with *charri* except where the soil is sandy, and only a pulse can be grown. The crop grows up very dense, the millet having a very small head, and never reaching more than a height of about 4 feet. The people begin cutting the whole as green fodder in August, and go on using it for two months till the crop has ripened. The heads of the *charri* are occasionally picked for the grain; but generally the mixed crop is cut down and given without any attempt to get the grain of the pulses. It is intended that the cattle should get the grain as well as the straw; for it would be a short-sighted policy to keep out the former, as the cultivator well knows. In Jagráon Tahsíl there is not the same necessity for a strengthening fodder; and very fine *jowár* is grown. There is the same mixture of pulses; but the millet seed is in very small amount and the stalks come up at intervals and grow to a height often of 8 or 10 feet, and have very fine heads, which almost weigh them down. The pulses also have a fair yield of grain; and only the straw and *jowár* stalks are used for fodder. In the Jangal villages the spiked millet (*bájra*) sometimes takes the place of *jowár*. In the Bét *charri* or fodder alone is grown, the soil not suiting the pulses of the Dháia. There is no yield of grain. *Másh* (called *máh*) takes the place in the Bét of *moth*, &c., but it is grown only in the new and moister lands adjoining the river. *Múng* is also grown

CHAP. II. A. Agriculture

alone or mixed with *másh*; but *charri* is the sole Kharíf crop in the bands of the Pukka Bét.

Massar and rice. Gordon Walker, S. R., § 119.

Massar (lentils) have been already mentioned as being sown in newly recovered Bét land for the first 2 or 3 years. The crop is cut for fodder, or the grain is eaten as *dál*. It is only in the first year that it is grown by itself, the seed being usually mixed with barley. Barley and *massar* is the corresponding crop in the Bét to *berra* in the Dháia. An occasional field of (*alsi*) linseed will be found in the Bét. Rice (*munji*, *dhán*) is grown in places along the river in completely new land. It is a very coarse sort, and the market price is about 30 seers a rupee. The whole area under it is only 2,500 acres. When a new piece of land turns up, it is ploughed roughly a couple of times, the grass (*dib*) often being left standing, and the rice sown. There is perhaps no crop at all; but generally a fair yield. There is no transplanting, and the crop ripens in forty days from sowing.

Miscellaneous crops. Hemp. Gordon Walker, S. R. § 120.

These are the principal crops, and the remaining ones may be disposed of briefly. *San* (*crotalaria juncea*) is grown in unirrigated lands in sufficient amount to make the necessary ropes for agricultural purposes. It is ready in October, and is cut and steeped in the village ponds, the process causing a most offensive odour. It is then taken out, dried in the sun, the fibres pulled apart and worked by the hand into thin ropes, which are again steeped and then beaten (skutched). These thin ropes are then twisted into others of the necessary thickness. *Sankukra* (*hibiscus cannabinus*) is grown round the edges of cane fields sometimes. Indigo is grown in a few Muhammadan villages, principally in the Bét. The green crop is steeped, and the dye made into balls after the usual native method. Poppies are grown in a few villages for ? *post* and a catch crop of *kangni* or *chína* is occasionally taken at the wells in a bad year when the price of grain is high. Tobacco is grown at the wells in fields which have borne a Kharíf crop. It is sown in plots at the beginning of April, is transplanted in a week or ten days, and is cut in May. It requires a great deal of manure and constant watering. The Muhammadan cultivators of the Bét (Aráín, Gújar, &c.) grow a great deal; but there is also some in the Dháia. Melons, musk (*kharbúza*), or water (*tarbúza*), are grown in the Bét, in unirrigated land. The crop is sown in April, and the melons come into the market in May, and go on through June. There is of course a very large demand for them in the town of Ludhiána; and the green-grocers (*sabzi-farosh*) buy them from the cultivator by the field, when it is known what the crop is likely to be. The price realized is sometimes very high, and is generally Rs. 20 to Rs. 30 an acre. The expense of the manure is considerable; but the crop is a paying one to the cultivator. There is a second crop of water-melons in the Kharíf, sown in July and picked in October-November. Garlic (*lassan*) and onions (*piáz*) are also grown after the Rabi. In the Dháia

Indigo.

CHAP. II, A. Agriculture Miscellaneous crops.

the cultivator grows a few square yards of the latter for his own consumption; but in the Bét large fields are grown and sold to the green-grocers. *Lassan* fetches a high price, and is bought like melons by the field. Pepper (*mirch*) is also grown in Aráin and Gújar villages. All sorts of native vegetables are grown in the wells in the Bét. They are *sonf* (*foeniculum vulgare*), *dhaniá* (coriander), potatoes, *arbi* (edible arum), *salgam* (turnips), *múli* (radishes), *ajwáin*, *khira kakri* (cucumbers).

The cotton at the wells is usually followed by a green fodder crop of *metha* (fenugreek), *senji* (trefoil) grown alone or mixed with barley or by a crop of carrots, which are largely eaten by the people themselves and also given to cattle.

Rates of seed.

Seed is ordinarily put at the following rate per *bígah* (*kachcha*):—gram 6 *sers*; wheat 10; maize 4; *moth* and *múng* 1; *másh* 1½; rice 10; and cotton 3 and sugarcane 10 maunds. These rates prevail throughout the District except in the Jagráon and Ludhiána. Tahsils where the rate for wheat in unirrigated lands is 15 *sers* and in well-irrigated 20 *sers*.

Minor calamities.

Some of the minor calamities of season, and of the pests from which the crops suffer, are noted below:

Agat.

Agast or *agat* is a north wind which blows for a day or two about Bhádon, 22nd (middle of September), and breaks the maize stalks, besides injuring in a less degree the cane and cotton. The name is that of a demon who is supposed to cross the country on his way from the hills to Ceylon, and to spread ruin amongst the crops in his course, which is generally only a few miles wide. His advent is followed by the appearance of the bird called *mamola* (wagtail); and is really the beginning of the cold weather. Witness the couplet:—

"Bhádon! by your 22nd day Agat sets out for Lanka; the streams and water become controlled; the butter hardens."

Frost.

Frost does a good deal of harm (*pala márliá* is the expression used) to the cane and to the late cotton (sometimes), as well as to the *sarson* in the Rabi. It does not appear to affect the wheat and gram; but the wheat and barley, when the grains are forming in the heads, are very liable to be blighted by cold winds from the north or west, the east winds are always mild. This is called *tulla márliá* and the people have no very clear account to give of what happens. They say that they find some morning that the grain is blighted, and the heads turn yellow and wither. Hail-storms (*golá*, *galla*) occur almost annually somewhere or other in the District, either in the month of October or in March. The Kharíf or part of it is generally reaped at the time that the autumn storms come; but considerable injury is sometimes done to the pulses. The Rabi always suffers severely from hail when it falls, the wheat and barley stalks being snapped, and the gram pods broken off. In a few

Blight.

Hail.

CHAP.II.A. Agriculture

days the crop gets a yellow withered appearance. A hail-storm generally passes across some part of the District to a width of one or two miles, but the total injury done is never very considerable, only a few fields in any village being affected as a rule. Lightning does occasional injury to fields of cotton, pulses and *san* in the autumn. Locusts (*ahn, tid*) appear at places every third or fourth year, and go across some of the villages in a line two or three miles wide, eating up everything. Their appearance is generally in September-October (Bhádon-Assoj). Their ravages have never been so extensive as to cause a general calamity; and the injury is usually partial, like that of hail-storms. *Sundi* are green caterpillars which attack the gram and *sarson* stalks. Good rains in the cold weather will kill them, but if the rains are short they are most destructive to unirrigated crops; much worse than locusts, because they are universal and come every year. They live in holes, and come out during the night to work. Hard soils suffer most. And in places at least half of the gram crop is sometimes eaten by them. *Kungi*, or red rust, is said by the natives to be caused by a tiny insect that appears on the wheat or barley heads when rain is followed by clouds. It affects the crops in Mágh-Chet when the ears are beginning to form, and covers them with a fine dust, yellow or red, under which the grain shrivels. General injury is done by *kungi* at rare intervals, the last bad year for it having been 1875. It often appears, but a few days of sunshine drive it away. *Kungi* affects irrigated as well as unirrigated crops. Young cane plants are attacked by a caterpillar called *kansua* and full grown cane by small insects called *tela* (black) and *punke* (white). *Tela* also attacks cotton. Cane and cotton are cleared of these by rain, otherwise the juice of the cane becomes watery and poor. Whiteants (*seonk*) attack the roots of the unirrigated Rabi crops in all soils, and do a great deal of injury in some years. The cure for them, as for all other pests, is rain.

Lightning. Insects: locusts. Caterpillars. *Kungi.* Whiteants.

Rats.

Field rats also do some harm in light soil, but have never come to be much of a pest. *Sundi* caterpillars and whiteants do much more injury than anything else to the unirrigated crops. Jackals eat the maize all over the District, and the destruction caused by pigs in the villages under Ludhiána has been noticed in Chapter I (page 18). Herds of deer wander all over the fields, but they are not so numerous as to cause much injury. People put up in places sticks with cloth attached to scare the deer off (called *darne*). Platforms (*manna*) are erected on the trees or on sticks stuck in the grounds for the purpose of watching the maize and *jowár* fields and boys sit on these screaming and firing mud pellets from slings (*gopia*). A rude fiddle made of half a gourd, with a piece of gut stretched across it, is used in the Bét for frightening the pigs from the cane. The noise may be heard at a great distance. The cultivators also light fires along their fields for the same purpose, and have to watch all night. In most villages a *rákhi* or watchman

Jackals, pigs, deer. Scarecrows, &c., watchmen.

CHAP. II, A. Agriculture

Scarecrows, &c., watchmen.

is appointed, whose duty it is to wander about the fields and see that cattle do not stray amongst the crops. If cattle are caught trespassing, the owner is fined a couple of sers of grain, which is paid to the watcher, who also receives an allowance from the whole village at harvest time. Watching at night is not usual, except where, in places, the habit of pilfering from the fields has become common, or in the neighbourhood of Harni villages, or of the towns.

Noxious weeds.

The principal weeds are *piázi, kasumbhí* and *lehi*. The two first are so named from their resemblance to the onion and the safflower, and the last is the common thistle. All three flourish throughout the District; but the Bét appears to suit them best. *Piázi* does the most harm and a great part of the cultivator's time is taken up in rooting it out of his fields. This process is not attended with much success in the Bét or in Muhammadan villages, and one often sees a field of wheat completely killed down by it. It appears to be impossible to clear the land of it altogether, for there is a fresh growth every year; and, if left alone, it would very soon cover the fields. Other less common weeds are, *bíthu chauri saroch, jaunchi, harmal, barru.*

Cultivated area. Surveyed and assessed area. *Table* 18 o *Part B.*

It will be seen from Table 18 of Part B. that in the 20 years 1882-1902 the cultivated area increased by over 30,000 acres. In 1901-02 it amounted to over four-fifths of the total area of the District. The total area "available for cultivation not yet cultivated" is over 52,000 acres, and there is little prospect of this being to any great extent reduced. Canal irrigation, as will be seen below, has reached its limit in this District. The proportion borne by the Rabi and Kharíf harvests to the total area cropped is shown in Table 19; there is an increasing tendency for the Rabi to predominate, owing to the facilities afforded by canal irrigation and the good prices obtainable for wheat.

Improvements in agriculture and staples.

Mr. Gordon Walker thus discussed the past and future of agriculture in Ludhiána:—

"The agriculture which I have described in the preceding paragraphs is of much the same character as it has been for the last century or two. With the increase of population the land has come to be more heavily manured and cropped, but the manner of tilling it has remained unchanged. No new staples have been introduced within recorded memory. The agriculture is, I think, perfectly sound, and it would not be easy to show a Jat how he could do better with the capital at his disposal. A better sugarcane mill may take the place of the present clumsy machine, and improvements may be effected in the form of the plough; but I do not see that much is to be done in the way of introducing new staples or manures. There are some points in which the people might be instructed; but there are not many in the present system which could be pointed out as really faulty. A Jat would willingly adopt any real improvement within his means, as he is not prejudiced. For the ordinary cultivator of the Bét one has only to set up his neighbour, the Aráín or the Hindu Jat of the Dháia, as an example of what he might do."

CHAP. II, A. Agriculture

Foreign seeds of maize, cotton, *jowár* and carrots were recently tried but with no success, probably because the *zamíndárs* did not pay full attention to them.

Takávi. *Table 20 of Part B.*

Loans under the Agriculturists' Loans Act are not popular, and there is but little demand for loans under Land Improvements Loans Act. The delays and formalities connected with *takávi*, and the rigid system of repayments which takes no account of bad harvests account for its unpopularity. The total amounts advanced under the Land Improvement and Agriculturists' Loans Acts during the 10 years ending September 1901 are shown in the margin, together with the sums written off as irrecoverable during the same period, and the amounts outstanding on 30th September 1901.

	Land improvement Loans.	Loans to Agriculturists.
	Rs.	Rs.
Advances	8,470	31,223
Written off as irrecoverable	...	65
Outstandings	9,675	4,877

Economic condition of the agriculturists. Sales and mortgages of land.

The economical position of the landholders of the District was discussed at some length at pages 422 *ff.* of the Famine Report of 1879, where actual figures are given for instances selected as typical. In forwarding these figures, the Settlement Officer wrote as follows :—

"The District has a river frontage on the Sutlej of about 60 miles, and stretches to the south of it some 20 or 30. The alluvial tract between the river and high land is more extensive than in most Districts, reaching inland 5 or 6 miles. It is inhabited by Muhammadans of the Rájpút and Gújar tribes, who form about a sixth of the agricultural population of the whole District. The upland tract is almost entirely in the hands of Jats, principally Hindús, who form about two-thirds of the whole agricultural population of the District. The difference in the condition of the inhabitants of these two tracts is so very marked that it will be better to give a separate account of each.

"The Bét or alluvial tract has a most fertile soil, requiring very little exertion from man for its cultivation. If the overflow from the river fail, the Kharíf harvest may be bad; but it is not probable that there will be a failure of rain the same year, and a good Rabi crop makes up the deficiency. The water is so near the surface that it can be raised with little exertion in any amount for irrigation. What the people dread is excess of flood from the river rather than drought. Notwithstanding these advantages, the Rájpúts and Gújars who own and cultivate the land are in a very bad condition. Naturally indolent and thriftless, they are the worst cultivators and the most reckless spenders of any money that comes into their hands. They have no idea of regulating their expenditure by their means and are consequently in the power of the money-lenders, who are too willing to make advances on the security of the land. I believe that all the owners in this tract are in debt, and most of them deeply. They have no property except the jewelry of their women and a few cattle. Their houses are squalid; they have none but earthenware dishes, seldom any store of grain: and they are generally dependent for their daily food on their money-lenders, whose terms preclude the chance of any part of the produce remaining in their

CHAP. II. A.

Agriculture

Economic condition of the agriculturists. Sales and mortgages of land.

hands. The only cause of their indebtedness, I may add, is their thriftlessness. Special allowance was made for their habits in fixing the Government assessment, which is comparatively light.

"These remarks apply to the owners of the land. The condition of the tenants is for several reasons much superior. Rent is generally paid in kind, so that the distinction between tenants-at-will and occupancy tenants is not marked. Of late years, owing to the influx of grain principally, there has been a great demand for labour in and about the town of Ludhiána; and men have been drawn away largely from cultivation. A tenant can earn three to eight annas a day by manual labour, and thus add largely to his means of subsistence. The Rájpút proprietors, who are themselves much above working as coolies, are really at the mercy of their tenants. I have heard of many cases in which a tenant with occupancy rights, holding of a Rájpút proprietor, cultivates a small portion only of his land; the proprietor receiving as his share of the produce what is worth actually less than the Government assessment of the holding.

"I can give no reliable figures as to the amount of indebtedness of the various classes at this stage of the Settlement. All of the proprietors in the Bét are probably in debt, most of them deeply, and very few of the tenants.

"Turning to the Dháia or upland tract of the District, we see a very different picture. The country stretches to the south, a clear and fertile plain unbroken by a single stream. The soil is light and capable of yielding the richest staples. In the eastern part of the District the water is near the surface, and a large proportion of the land is irrigated; while towards the west the soil becomes lighter and more mixed with sand, and irrigation rarer. But the people (Jats) are much the same everywhere. They make the best use of the land that their knowledge admits of, and are most frugal in their mode of life, eating whatever grain is in season, and spending little money in extravagance. The people are almost entirely cultivating owners. The tenants that there are consist principally of (1) owners cultivating the land of other owners; (2) village menials.

"In the small populous portion of the District adjoining Ambála the land is mostly irrigated, and the conditions are a little different. But in the greater portion, roughly speaking all to the south and west of the railway, the proportion of land irrigated is small. The soil though light and sandy is most fertile; and in a good year the supply of grain from a holding is much more than sufficient for the support of the household. The surplus is either stored or sold, and the proceeds laid away or lent. If there is a scanty rainfall, the people are not at a loss. What generally happens is this. There is no fodder for the cattle (as there is no land left for grazing in the whole District), and the cows and buffaloes are sold for almost nothing, or die. The men of the family leave the other members to subsist as they can on the store of grain or money hoarded, and go to seek work elsewhere. Few *zamindárs'* houses in the District are without a cart; and the men, yoking their bullocks, not now required for agriculture, into this, go off to Lahore, Pesháwar and Delhi, conveying goods for hire. In a few months they return with earnings sufficient to live over the bad harvest.

"The seasons have been particularly good recently, and the high price of grain has brought a good deal of money into the agriculturists' hands. Some of them speak of being in debt; but there are very few indeed who owe more than a couple of good harvests will pay off. The debts they refer to are temporary, and the creditor is generally a brother proprietor.

CHAP. II, A.
Agriculture
Economic condition of the agriculturists. Sales and mortgages of land.

In very few villages is there a professional money-lender. The houses testify by their outward appearance to the prosperity of the people. Brass dishes are always to be found in them, and there is generally a store of grain and some money hoarded. The women all wear silver jewelry. Most houses have two or three cows or buffalo cows, and something is made by selling the young stock or the *ghi.*

"The custom in this tract is for a tenant, invariably in the case of occupancy tenants, and usually in the case of tenants-at-will, to pay a consolidated rent, that is, the Government demand and something over. This system does not appear to work so well for the tenants, who are not generally men of sufficient means to bear the burden of a bad year; and debt is not uncommon amongst them.

"In conclusion, I should say that the condition of the agricultural population was most flourishing, except in the lands along the river. The owners in that tract are mostly indebted, many whole villages being mortgaged. Among the Jat owners the amount of debt is very small. I regret that I can give no figures at present as to the amount of indebtedness. Occupancy tenants hold less than 5 per cent. of the whole cultivation. They are well off in the low-lands, and not so prosperous in the higher lands. On the whole I should not say that they were generally in debt. Tenants-at-will hold about 20 per cent. of the cultivated land; but a large proportion of these have also land of their own, or are village servants, having other means of eking out a livelihood. Tenants depending entirely for support on their holdings do not form a great part of the agricultural community. This class is, as a rule, free from debt."

Gordon Walker, S. R. § 194.

In a series of Appendices (No. V*a.*—*c*) to the new Settlement Report was collected such information as could be obtained relating to the transfers of land during the last 30 years. The general result may be stated for the whole District that two per cent. of the area has been sold in the last 30 years, and that at present eight per cent. is held in mortgage with possession, these proportions being fairly equal everywhere except that in Jagráon the area mortgaged is 12 per cent. Mortgages without possession are very uncommon. One agriculturist will not advance money to another unless he gets land into his possession sufficient to give a fair return; while the money-lending classes give credit on running accounts, or, if the borrower's credit is not good, on land transferred to them.

"The registration returns showed that the number of transfers previous to 1865 was very small; but that it has not varied very much during the three periods of five years, 1866—80. The general question of what the causes are which have led to the transfers since 1865 is a very wide one. They cannot be a sign either of want of prosperity or of undue pressure of the land-revenue, for the agricultural population has never been so well off as during these fifteen years, and the profits of cultivation have never been so great. There can be no doubt that, on the contrary, they indicate prosperity, and may be due to extravagance resulting from a sudden influx of wealth. It is remarkable that the proportion of area in mortgage should be higher in Jagráon than in the other Tahsils, although we know that the condition of the Jats here is superior to that of the agricultural population of any other part. It should also be added that mortgages are very often not due to any real pressure of debt; but merely a method of raising money temporarily required; and sometimes, too, they are a mere form of tenure.

CHAP. II, A.

Agriculture

Gordon Walker, S. R. § 195.

In the next place it is important to see into whose hands the transferred land has come. In the margin is an abstract of Appendices V*a.* and *b.* of the Settlement Report. The inference from this is that the agriculturists could hold their own against the class whose profession is money-lending far better than in most Districts of the Province.

Percentage.	Co-parceners.	Other agriculturists.	Non-agriculturists.	Total.
Sold to	42	23	35	100
Held in mortgage by	43	14	43	100

The Jats of the uplands at all events seldom allowed an outsider to acquire permanently any land in a village community. The right of pre-emption was generally claimed and insisted on. Every well-to-do Jat who has saved a little money will endeavour to invest it in a mortgage of land, and some of the tribe have established very large money-lending connections. Amongst the Muhammadans of all tribes, too, there are a good number of men who hold land in mortgage. It would never be difficult for a cultivator in the uplands to raise a loan on his land from a co-sharer; and this could generally be done also in most parts of the lowlands. But there is often a prejudice against borrowing money except from a regular money-lender. There are some very large bankers of the regular money-lending classes in Ludhiána, Jagráon, Raikot and Máchhiwárá, who carry on a large business with the villagers, and also some scattered over the District; but the mass of the Jat population can get on without any assistance, and have generally some cash in hand. The total outstanding debt on mortgage is returned as upwards of Rs. 20,00,000 or about two years of the revenue demand. Of the money owed on book debt we have no details."

Sales and mortgages of land.

Table 21 *of Part B.*

Speaking generally we may say that the land is passing from the hands of the inferior cultivators to those of the Hindu Jats. This applies, however, principally to the Dháia lands, as those in the Bét are inferior and not considered by the Jats as worth acquiring. Before the passing of the Land Alienation Act (XII of 1900) the general tendency was for the Dháia lands to pass to the Hindu Jats while the Bét lands went to the *sáhúkárs*. Since the passing of the Act transfers have been comparatively few. For some time the *zamíndárs* understood that the Government had prohibited the transfer of land altogether, and so lately as September 1903 the Deputy Commissioner reported that the attitude of the people was one of interested curiosity. There are no Co-operative Credit Societies in the District, and little prospect of their being instituted. The Jat always invests his money in land, and the Muhammadan in the Bét has no money to invest.

Land Alienation Act.

A special difficulty in connection with the definition of the term agriculturist has been experienced in this District by sub-registrars. The *patwáris'* copies of the Record of the Regular Settlement (1851) were destroyed by order of the Director of Land Records in 1895. Hence applicants for registration have to produce certified copies from the District Record Room to prove their status as agriculturists to the sub-registrar. In some cases sub-registrars

CHAP. II, A. — Agriculture. — Land Alienation Act.

referred to the Collector to find out whether the alienees fulfilled the definition of agriculturists. This procedure was troublesome, expensive, and dilatory, and threw extra work on Revenue and Registration officials. To meet this difficulty lists have been prepared for each village showing the persons (not being members of agricultural tribes) who were entered as owners or occupancy tenants in the Regular Settlements. Copies of these lists are now distributed to *patwáris* and the agriculturist alienee takes a certificate from the *patwári* to the effect that his name or that of his ancestor occurs on the list. The general effect of the Act, as stated by the Deputy Commissioner in his report for the year 1902-03, has been good. The Málwa Jat has always been in the habit of investing his spare cash in land, and now that the competition of the *sáhúkárs* has disappeared the extraneous factor which used to rule the price of land, the fact that the seller was in the power of the buyer and his inferior in cunning, has disappeared likewise. Hence land has regained its natural value, the Jat buys it or takes it on mortgage from his compatriot for what it is worth to him as an investment, and the result has been a general appreciation in the value of land. The Deputy Commissioner considers that the educated Sikh community is the class which is likely to benefit most from the passing of the Act. The Jat loves litigation and for choice employs a pleader of his own class. The pleader—and the impetus lately given to Sikh education will increase the class—reaps rich fees and invests them in land. There can be little doubt that the Hindu Jat will in course of time expropriate his Muhammadan fellow-tribesman from the rich lands of the Dháia, and leave him only the inferior and degenerating land of the Bét. From the point of view of extensive cultivation this cannot be considered otherwise than as a gain to the community at large.

Cattle breeding.

From what has been written in Chapter I as to the absence of grazing ground, it may be inferred that the District is not adapted for cattle-breeding.

Draught and plough cattle. Agricultural stock. *Table 22 of Part B.* *Gordon Walker, S. R.* § 130.

Bullocks are universally used for agricultural work; and he must be a very poor man who can only afford a buffalo, this animal being considered the sign of poverty in a cultivator. The bullocks are either bred in the villages, or imported from the cattle-breeding tracts to the south (Hánsi, &c.), being brought up in droves by dealers who go from village to village, generally a few weeks before the Baisákhi and Díwáli fairs, on their way to Amritsar. It is difficult to determine exactly what proportion of the cattle used in agriculture are bred in the District; but it is probable that between three-fourths and half of those in Samrála are imported. In Jagráon there is still some grazing land left, and the greater part of the cattle in use are probably bred in the Tahsíl; but there are also large purchases from dealers. The people of the Jangal are very fond of buying cattle, using them for the few months during which agricultural operations go on, and then selling them, thus

CHAP. II, A
Agriculture
Draught and plough cattle. Agricultural stock.

saving the keep for several months. The home-bred cattle are said to be better for the work than those imported, because, apparently, the former are stall-fed all their lives, while the latter, having been raised on grazing, feel the change, and cannot do well on the straw which they have to eat for a great part of the year. A bullock costs from Rs. 20 to 25, if two years old; and Rs. 40 to 60, if of full working age. At two years' old he is yoked in the plough; and works in this till he is four, when he is put to the well. Bullocks go on working till 12; but at that age they are old, and they do not live beyond 14 or 15. In Samrála and the highly cultivated parts of Ludhiána they do not last so long, on account of the constant hard work in the sugarcane mills and at the wells. Where (as in Jagráon) the people keep carts, the quality of the draught cattle is superior, and one sees some very fine bullocks in those parts, much higher prices being paid, and the animals being better looked after. In the Bét the cattle are of a very much inferior stamp, as they are only required for the plough. They cost Rs. 15 to 20 each, and are bought anywhere. The price of plough cattle does not appear to have risen since Settlement.

Food of draught cattle.
Gordon Walker, S. R. § 131.

In the months of Baisákh, Jet, Hár (April-June) the cattle are fed on dry straw and grain, the new straw of the Rabi coming in by the first of these months. This is the worst time for them, and the working cattle could not get on without the *ser* or two of grain that they get daily. In Sáwan and Bhádon there is good grass in the waste, if any is left, and in the fields intended for the next Rabi, where it is allowed to grow till the time of the Sáwan ploughing. The cattle are grazed on this, and it is also grubbed up and given to them in the stall, the grain being stopped. Cutting grass is the work, in Jat villages, of the women, who are out all day in the fields, collecting bundles. The cattle have very light work in these two months, because the wells are not working; and between this and the new grass they put on condition. In Asauj and half of Kátak (September to October) green fodder, either *charri* alone or mixed with *moth*, &c., is given; and this is perhaps the best time of the whole year for the cattle. At the end of Kátak the *charri*, &c., is cut and stored, and during Magar, Poh, Mágh, and Phágan the dry stalks of *charri*, maize, &c., are given, and, if necessary, straw. The straw is either white (*saféd bhúsa*), that of barley and wheat, or *missa*, *i.e.*, of *moth*, *másh*, &c., coloured straw. The latter, especially the *moth* straw, is said to be very strengthening. In the month of Chet (March) patches of green fodder are grown at the wells, either *metha*, *senji*, &c., or carrots; and green wheat or barley is also given, but not commonly in an ordinary year. Speaking generally chaff, grass, *charri*, *jowár*, *senji*, and the crushed stalks of sugarcane and *bájra* are the principal fodders, supplemented in times of scarcity by leases of trees. Rice-husks are supposed to lessen the yield of milk and are not given to milch-cattle, unless no other fodder is available. Chaff is imported by rail to supplement the local supply.

CHAP. II, A.
Agriculture
Milch kine. Gordon Walker, S. R. § 132.

The number of milch-cattle is not more than sufficient to supply local wants. There is no attempt to keep cows specially for the sale of milk or of *ghi* except in few Gújar villages mostly close under Ludhiána; and in these the milk is generally bought up by people from the town. Our enumeration would show a cow to every five or six of the population. In the Bét buffaloes and cows are generally kept; and in the Dháia cows. The milk is boiled and churned in the usual manner in a *chátti* of earthenware by means of a wooden staff (*madháni*) twirled round in the hands or by a string. The people of the house use the butter-milk (*lassi*) which forms a very important part of the cultivator's daily food; but the *ghi* is generally sold or kept for the occasion of a marriage, &c. The whole supply is not, however, more than sufficient for the consumption of the better classes in the villages and in the towns. Cows cost about Rs. 20 each in Samrála or Ludhiána Tahsíls, but in Jagráon Rs. 35 is paid for a better stamp of animal. The buffaloes cost Rs. 50 in the two former Tahsíls and Rs. 75 in Jagráon.

Loss of cattle by disease; Insufficient food; Drought. Gordon Walker, S. R. § 133.

A good deal of loss is caused annually by cattle-disease, and attempts are being made to disseminate information on the subject. The names given by the people are so various, and their accounts of the causes often so fanciful, that it is not easy to identify the different diseases that prevail. Great mortality occurs from overwork and insufficient food, especially in a year of drought. In the eastern parts of the District nearly the whole of the Kharíf unirrigated crop is grown for fodder; and a failure of the autumn rains means that the cattle will get no grass or green *charri* in the autumn, and no dry *charri* in the months of the cold weather; while they are at the same time deprived of their usual rest of two or three months, and have constant work at the wells. It is not possible that cattle should go all the year round on dry straw and grain. The first effect of drought is to reduce the condition of the cattle, and to render them very liable to the ordinary ailments if they do not actually die of overwork and starvation. There was a considerable loss in this way in 1861 and 1868, but not in any other year since the Regular Settlement. Besides being sadly overworked and often insufficiently fed, the cattle in the eastern villages are very badly housed. They are taken home inside the village, and penned up in houses a few feet square, while their masters are enjoying the fresh air on the roof of the house. In the western parts they have much better accommodation, and get plenty of fresh air.

Diseases prevalent.

Sirak and *bawa* are terms used to denote any form of epidemic disease; also *marri*. Only two true epidemic diseases amongst cattle can be identified, of which the first appears to be either anthrax fever or malignant sorethroat. It is called *gal gotu*, and is very deadly in its effects, and also most infectious, attacking buffaloes and bullocks alike. The affected beast gives up its food, and a swelling forms in the throat. This appears to burst internally, and the majority of animals affected die the day after the appear-

ance of the first symptoms. No attempt is made at a cure; but it is said that, if purging sets in the second day, the animal will recover, unless it dies of exhaustion in ten or fifteen days. The disease is always present somewhere in the District, and when a village becomes infected, it will lose fifty to a hundred cattle in a few days. Recoveries are rare. No attempt is ever made to prevent the spread of the disease by isolation, burying carcases, &c. It is said to be carried from one village to another by carrion-eating birds, storks in particular.

CHAP. II, A.
Agriculture
Diseases prevalent.

Foot and mouth disease.

Foot and mouth disease is called *monkhur* or *morkhur* (also *rora* and *chápla*), and is common. It is never very deadly; but the cattle affected are useless for a long time. It appears to be very infectious and crops up here and there almost every year. The first object to which attention should be directed is obviously the prevention of the spread of these epidemics from village to village and inside of villages; and it will, of course, be very difficult to induce the people to do anything for themselves in the matter.

Ordinary ailments of cattle.

Of the ordinary ailments, *ogu* appears to be epilepsy, or paralysis, the beast affected generally falling down and dying in a short time. *Tilla* and *hallu* are the effect of cold, and attack buffaloes only, the symptom being difficulty of respiration. *Mokh* is purging in any disease. Rinderpest does not appear to be amongst the diseases which attack the cattle of the District. Cattle are often lost by overfeeding with *methe* or other green fodder after having had poor food for some months. When there is a break in the rains, and the *charri* is stunted (called *sokha*), cattle getting into the field and grazing fall down and die. This is called *patha lag gaya*, and is apparently choking.

Horses.
Gordon Walker, S. R., § 134.

A portion of this District, as well as of Ferozepore and Hissár (Sirsa Tahsil) abuts on a tract of country extending about 50 miles all round the Patiála fort of Bhatinda, which is called the Jangal, and the horse of which tract is well known as the Jangal horse, the breed being descended from Arab stallions kept at Bhatinda by the Muhammadan Emperors. Patiála still keeps stallions there but of inferior quality. The mares of the Jagráon Tahsil, which abuts on this tract, are of a very fine breed. The people of the Dháia are not fond of keeping horses, considering them a useless expense. The distances are generally short, and the people prefer walking. Of the *lambardars* even it is only one in a hundred who owns any sort of an animal, or has ever been on one. The Settlement enumeration showed about three horses or ponies to each village. In the Bét, where there is a little grazing, the Muhammadans have a few weedy ponies, but these are of a very poor breed. In one or two of the villages to the south-west of Ludhiána the proprietors are engaged in the horse trade (Burj Latan, Alike, Dhingar, &c.). They buy young animals all over the country, feed them up for two years, and sell them at Batesar and other fairs across the Jumna. This trade is not of any importance.

CHAP. II, A. Agriculture

Fairs.

A horse and cattle fair known as the Chait Chaudas Fair is held at Ludhiána on the 14th to the 18th of Chait (about the end of March). It is of no great importance. Cattle to the value of about Rs. 50,000 or 60,000 change hands. Prizes amounting to nearly Rs. 1,000 are generally given from District Funds. The fair is attended by people from the adjacent Districts, the Phulkián States and Maler Kotla on their way to the Amritsar fair. For the three years prior to 1901 owing to plague and scarcity no fair was held and plague also prevented its being held in 1902. In 1903 the average prices realized in rupees were: ponies, 46: mares, 57: cows, 15: bullocks, 22: she-buffaloes, 23: male-buffaloes, 5: mules, 112: camels, 47: and goats, 5. Rs. 912 were realized in fees.

Camels. *Gordon Walker, S. R.* § 135.

Camels are kept by the people of most of the Jangal villages, and by those of a good many others scattered over the District where it has become the custom to do so. It is very common for an enterprising *zamíndár* to purchase two or three camels with any savings that he has, and to start in the carrying trade. The Jats are very fond of turning an honest penny in this way; and where carts will not work, as in the Jangal villages, camels are used for bringing up the grain to market. The Kábul campaign of 1878 is said to have nearly cleared the District of camels.

Sheep and goats, and miscellaneous *Gordon Walker, S. R.*, § 136.

Sheep and goats are returned as 120 to 130 thousand in number. They are kept in every village, the goats for their milk and the sheep for their wool. They belong to no special class of the community, and require no separate mention here. Sheep are cheapest in Samrála Tahsíl where the price is about Rs. 2 per head as against Rs. 5 in Jagráon. Goats cost Rs. 5 each in Samrála as against Rs. 8 in Jagráon. Donkeys and mules are used by Kumhárs or brick-makers. A donkey costs about Rs. 15 in any part of the District. There are very few pigs. Fowls are not to be found, except in Muhammadan villages, and there they belong to low caste people generally Chúhrás. There are ducks and geese in many villages along the Budha, and a large number are reared in the old *chauni* or former military bázár. These find their way to Kasauli and Simla, and there is rather a busy trade in them.

Veterinary Department.

1900-01	...	972
1901-02	...	1,145
1902-03	...	1,472

The Veterinary Hospital and Dispensary at Ludhiána was opened in 1896. The District Board have at present (1904) a scheme for building a suitable house for the Hospital, and its increasing popularity with the people is shown by the figures in the margin which give the number of cases treated for the last three years. In 1902-03, 960 cases out of 1,472 were discharged cured, while partial relief was given to 428. Of the 1,472 cases 591 were horses and 489 cattle. A Veterinary Assistant on a salary of Rs. 100 a month is paid by the District Board.

There are three stallions belonging to the District Board, one at each Tahsil. There are two donkey-stallions also belonging to

CHAP. II, A. Agriculture. Veterinary Department.

the District Board, under the charge of two *lambardárs*. Seven donkey-stallions, maintained from Provincial Funds, are kept in the various Tahsils. There are a few branded mares in the Ludhiána and Jagráon Tahsils, but horse breeding is not very vigorously carried on in the District.

Transport enumeration.

Camels ...	2,176
Bullocks ...	156,534
Mules ...	337
Ponies ...	5,616

Under the Punjab Military Transport Act (I of 1903) this District has been placed in the Delhi Division. The census figures showed the number of animals in the District given in the margin. The District has been divided into 63 sub-circles by *zails* or groups of *zails*, and municipalities or wards of municipalities. Of these 19 are in Samrála Tahsil, 16 in Jagráon, and 28 in Ludhiána, excluding the town. The Provisional allotment of the quota which the District may be called upon to furnish is shown in the margin.

Camels	2¼	Corps (one corps = 1,119)
Bullocks	1	Train (= 1,056)
Mules	45	
Ponies	65	

IRRIGATION.

The District rainfall has been discussed above (p. 12). Although when compared with Ferozepore Ludhiána appears an oasis, it is too far from the Siwáliks to be classed as even sub-montane, and would fare badly from time to time if it were solely dependent on the rainfall to mature its crops. The conditions vary largely in different parts of the District. In the Bét the land is practically level with the water. In the Dháia the water-level is often less than 10 feet below the surface. In the Jangal villages, however, water is not found at less than 150 or 200 feet below the surface; in other words it is virtually non-existent. The irrigated percentage of each crop is shown in the margin, for the years 1900-01. Previous to 1883 well-irrigation was common throughout the Dháia, while in the Bét large tracts of *sailáb* land brought a good if uncertain harvest to the cultivator. The District as a whole could not, however, be then considered secure from famine as a failure of the rains meant that the harvest was restricted to the few fields that surrounded each well. In 1883 the Sirhind Canal was opened.

Rice	·8
Sugarcane	73·6
Cotton	47·6
Maize	38·7
Wheat	31·7
Gram	10·2
Barley	22·4
Mung	2·8
Moth	·5

THE SIRHIND CANAL.[1]

Canal Divisions.

The Ludhiána and Jagráon Tahsils are irrigated from the Abohar Branch of the Canal, which is in charge of the Ludhiána Division, with its headquarters at Ludhiána. A small portion of the southern part of Tahsil Ludhiána is irrigated by the Bhatindá Branch which is in charge of the Bhatinda Division with its headquarters at Bhatinda in Patiála territory.

(1) This account of the Sirhind Canal is taken from a note by the Executive Engineer, Ludhiána Division. Canal bridges and crossings are given under Communications below.

CHAP. II, A.

Agriculture

Main Canal.

The Canal Main Line enters the District at its 17th mile near Bahlolpur in the Samrála Tahsil and runs in a westerly direction until it reaches Mánpur village in Patiála at its 30th mile. Here the main line ends and bifurcates into two large Branches, the one to the west irrigating British territory: while the other irrigates the Phulkián States. The Main Line has a bed width of 200 feet and can carry a maximum supply of 8,000 cubic feet per second, with a depth of 11·5 feet. The whole of the Main Line is navigable.

Branches.

At Mánpur the Branch which flows west and irrigates British territory is called the Combined Branch. It has a bed width of 136 feet: and can carry a full supply of 5,000 cubic feet per second; the other Branch which irrigates the Phulkián States is called the Patiála Feeder and has a bed width of 75 feet and can carry 3,080 cubic feet per second. The former after a course of two miles bifurcates into the two British Branches called the Abohar and Bhatinda Branches.

The northern or Abohar Branch starts with a bed width of 88 feet and a full supply of 3,155 miles of which 39 miles are in Ludhiána and most of the remainder in the Ferozepore District. In the Ludhiána District this Branch is navigable throughout.

The southern or Bhatinda Branch starts with a bed width of 84 feet and a full supply 2,530 cubic feet per second, it has a length of 100 miles of which only the first 12 miles are in the Ludhiána District. From the 34th mile of the Main Line to the 2nd mile on the Abohar Branch and the 6th on the Bhatinda Branch the Canal is in the narrow strip of Patiála State territory which projects into the Ludhiána District. This Branch is not navigable.

The following statement gives details of the Canal Irrigation for the year 1901-02 :—

Tahsil.	Assessment Circle.	Number of villages irrigated.	Total area commanded.	Cropped area.	Abiána.
Ludhiána ...	Dhai Nícha ...	1	43	82	203
	Dhai Uncha ...	47	10,174	10,148	33,503
	Tihára	40	6,601	7,460	15,525
	Pawádh	3	418	619	2,733
	Jangal	26	18,284	12,656	59,723
	Total ..	117	355,520	30,965	1,11,687
Jagráon ...	Dhai Nícha ...	3	136	163	505
	Dhai Uncha ...	79	25,367	33,368	1,13,552
	Total ...	82	25,503	33,531	1,14,057
	District Total ...	199	61,023	64,496	2,25,744

CHAP. II, A. Agriculture Branches.

Five minors from the Abohar Branch have been definitely closed for Rabi irrigation since 1901-02, in order to pass on more water to Ferozepore. This has not caused any hardship, as the tracts affected were irrigated by wells before the advent of the Canal and the *zamíndárs* have merely reverted to their disused wells.

The Canal benefits 117 villages in Ludhiána Tahsil and 82 in Jagráon. It commands 267,628 acres in the District of which it is estimated that it should irrigate 70,507 acres annually. In point of fact it irrigated an average of 78,466 acres *per annum* during the five years ending 1899-1900, but the closure of the five minors mentioned above brought the figures down to 61,023 acres in 1901-02.

Distributaries.

The names of the most important main distributaries are shown in the margin. There are altogether $455\frac{1}{2}$ miles of distributaries in the Ludhiána District.

LUDHIANA DIVISION.	BHATINDA DIVISION.
Khánpur	Sahna
Jassowál	Raikot
Jagráon	
Pakhowál	
Talwandi	
Manoki	
Dehlon	

Assessments.

The assessments of the whole canal in British territory are made entirely by the Canal officers. In the last three years the variations in the revenue assessed were comparatively small. No water advantage or owner's rate is at present charged on the Sirhind Canal. As however lands now watered by the Canal were at Settlement assessed in this unirrigated aspect (except such as were at the time watered by wells) Government is now considering the advisability of imposing an owner's rate.

The occupier's (or water) rate charged varies for flow irrigation from Rs. 7-8 an acre for a crop of sugarcane, rice and water-nuts to 12 annas for a single watering before ploughing. Lift rates are calculated at $\frac{2}{3}$rds of the flow-rates. The average occupier's rate per acre is almost constant at Rs. 3-3 per acre in the Kharíf and Rabi.

Working Expenses.

The working expenses vary from a little under to very slightly over Re. 1 per acre of annual irrigation. Some villages in the Jangal Tract are irrigated by the Jínd and Nábha *rájbahas*, and pay some Rs. 9,306 to the Patiála Canal Division. It may be remarked in passing that though the Canal has on the whole proved an immense benefit to the District by adding very largely to its resources and rendering it secure from famine, yet it has not been an unmixed blessing. The water-level has risen 8 or 9 feet owing to percolation from the Canal. One result of this is that wells which we constructed before the rise in the water-level are in danger of falling in, and in some cases have done so, as the part above the old water-level was constructed of brick and mud, instead of brick in lime. Percolation again is responsible for water-logging the soil in Samrála, where the strip

CHAP. II, A. Agriculture. Working Expenses.

of land between the Canal and the Budha Nala is frequently such a swamp that cultivation is impossible. Considerable remissions of revenue have been granted on this account in 19 villages of the Dháia Nícha Circle, the loss to Government being debited to the Canal Department. Attempts have been made to drain this tract so far without success. In the Bét lands there is now so little water in the river that the subsoil moisture has greatly decreased. This has of course affected the *sailába* land. These disadvantages however are so far outweighed by the advantages which the Canal has brought to the District.

Canal telegraphs.

A telegraph line extends from the Canal Head down the Main Line and down each of the British Branches. By its means speedy and efficient regulation of supplies in every Branch and distributary is rendered possible; and prompt measures can be taken to reduce damage to a minimum in case of an accident or breach to a channel.

Plantations.

A line of well-grown shade trees now exists on each side of the Canal (Main Line and Branches). A fair amount of revenue from sales of timber, fuel and grass is derived from these plantations.

Boundary Roads.

There is a public road on either side of both the Abohar and Bhatinda Canal Branches.

Dams.

The District is not especially liable to floods. The only dam in the District crosses the village of Aligarh. It is $1\frac{1}{2}$ miles long and was constructed with the object of protecting the town of Jagráon from floods in the case of an overflow of storm-water. It was built about 1880 by joint contributions from District and Municipal Funds and is now annually repaired by the Municipality of Jagráon.

Table 24 of Part B. Wells in the Bét.

In the Bét the depth of the water below the surface is only 8 or 10 feet, and the lift very easy. The wells here are of two sorts. There are *kachcha* or temporary wells with a lining made of *pilchi*, the water being raised in an earthen pot suspended from the end of a lever or pole, the other end of which is heavily weighted. The pot is pulled down into the well by a string attached to that end of the pole; and the weight at the other end raises it when full to the surface, where it is emptied into the irrigating channel. This apparatus is called a *dhinkli*, and has the advantage of only requiring one man to work it. There are also masonry wells of small diameter, worked like the other wells of the District with a bucket raised by bullocks. At the Regular Settlement there appear to have been very few masonry wells, and people were content with the simpler *dhinkli;* but within the 25 years nearly 1,000 masonry wells have been sunk, mostly in the villages just below Ludhiána city and to the west, for irrigation is not required in Bét lands further east. The *dhinkli* is capable of watering only about an acre of land; and, although the Aráín cultivator can grow a great deal in this small area, he can do much more with cattle and a

Gordon Walker, S. R. § 98.

permanent well capable of watering 6 to 7 acres; and the change is a decided advance. The Persian-wheel is used in one or two villages in the Jagráon Bét, adjoining Ferozepore.

CHAP. II. A.

Agriculture

Wells in the uplands.

In the Dháia the wells are all of masonry, the water is raised by means of a rope and leather bucket (*láo charsa*), worked by two pairs of bullocks alternately going down an inclined plane or run. The rope works over a wheel or pulley, raised a little above the well on a forked stick. To one end of the rope is attached the bucket, and the other is fixed to the yoke of the bullocks, which are driven down the run. When the bucket rises to the top, it is rested on the edge of a reservoir and emptied into it by a man standing there for the purpose, when the rope is unfastened from the yoke and the bucket allowed to descend into the well. Three or four men and two pairs of bullocks are required for one bucket, and can work for three or four hours at a stretch. For the continuous working of a single bucket-well four pairs of bullocks and 6 or 8 men are necessary. With this complement it will go on for the whole day. Nearly half of the wells in the District have two buckets and two sets of gear completely separate, so that both are worked at the same time. These are much wider than the single bucket wells, being 11 or 12 feet in diameter (while the latter are generally 7 or 8), and cost more to construct. The usual cost is from Rs. 250 to Rs. 300 for a single, and from Rs. 400 to Rs. 500 for a double well. The compensation paid for wells destroyed by the Sirhind Canal in 1869 averaged between Rs. 400 and Rs. 500. Irrigation is also given in places (Bét and Dháia) from village tanks, the water being raised 3 or 4 feet to the level of the fields by means of a basket worked by two men with ropes; but this is only possible at certain times of the year when the tanks are full. The water is first run into a small well or reservoir (called *chuhi*), and thence raised by a basket (called *dal*) into the irrigation channel. The basket is lined with leather, and has two ropes attached to it, one passing under each side and coming out at the corners. Two men stand on opposite sides of the well holding the two ends of each rope, and raise the water in the basket.

Spring level, variation in depth of the wells.

The distance of the water from the surface and the depth of the water in the wells was recorded at Settlement for every village in the District. The result of this record was to show that beyond the influence of the river, which affects the water-level to some distance from the high bank the depth below the surface of the water in the wells diminished from north-east to south-west in Samrála and the continuous part of the Ludhiána Tahsil. The Sirhind Canal has, however, considerably raised the water-level throughout the Dháia.

Supply of water in the wells.

The depth of water in the wells varies a good deal according to locality and season. It is generally 12 or 15 feet, but in a dry year will fall much lower. The amount of water which can be drawn out of a well depends on the source from which it is fed,

CHAP. II, A. Agriculture

The supply from beneath the lower clay is inexhaustible; but most wells are filled from the sand, and are liable to be worked dry, especially where the rainfall has been deficient.

Method of constructing a well. Gordon Walker, S. R. § 100.

The method of sinking a well is as follows:—An excavation of the size designed for the well is first made through the upper stratum of clay soil till the sand is reached, generally at a depth of 15 to 20 feet; and at the bottom of this is laid down the *chak* or cylindrical frame-work of wood on which the masonry lining of the well is to be rested. This lining is built up to the surface, and above it to a height of 8 or 10 feet and weighted down while the sand at the bottom is scooped out. The structure gradually sinks through the sand, the *chak* keeping it firm. Three sorts of sand are met with in the excavation; first, fine dry sand (called *reti*), and then moist coarser sand (*reta*), and finally sand which comes out in lumps mixed with pieces of clay or kankar (called *ghatti*); and it is from this last that the water is generally drawn. The sinker says that a good foundation has been reached (*pathan lag gaya*). The top of the well is then finished, and the reservoirs and other appliances built. In some villages the lower stratum of clay is reached (called *pándu*), and this gives a sure foundation for the well. A hole about a foot in diameter is driven through the clay into the sand below it by means of a pointed iron instrument; and the water rises as in a spring. It is a great piece of luck to have a well founded on the *pándu* for it can never fall in, and the supply of water is unlimited. Such a well is generally worked with three or four buckets. The *pándu* is said to be reached in most well-sinking villages about Malaudh and occasionally elsewhere. A well not founded on the *pándu* besides having a supply of water that is liable to be exhausted, may suddenly disappear altogether, or gradually subside, the foundation being undermined by the action of the bucket.

Irrigating power of a well. Gordon Walker, S. R. § 101.

Wells are worked with one, two, three and even four buckets; and we cannot judge of the irrigating power by merely striking an average of the area for each well. It is usually calculated that a two-bucket well can irrigate half as much again as a single well; and at this rate we have the average area watered by one of the latter sort 12 acres, and by one of the former 18 (in the Dháia). The following is an extract from the Assessment Report of Samrála:—"But to form an idea of the irrigating power of a well, we must examine the area under the various crops and the seasons during which they are irrigated. Roughly speaking, the Rabi crop is irrigated for six months (October to March), and the sugarcane crop for ten months (May to February). The other Kharíf crops, cotton and maize, require irrigation for nearly four months (July to October). The number of waterings given varies with the character of the season; but generally the Rabi crop requires one every 20 days, and the cane once a week. Taking the Rabi crop then, we have 28,000 acres watered once in three weeks, or 9,300 once a week,

CHAP. II, B.
Rents, Wages and Prices.

and 6,200 of sugarcane. This gives about five acres watered every week by a one-bucket well. In the Kharíf the area is naturally a good deal less. The estimate given me by *zamíndárs* is one *bígah* (*pucka*), or five-eighths acre a day for each bucket." The average area watered by a masonry well in the Bét is nearly seven acres, which bears about 12 acres of crop in the year.

Cultivation at the wells in the Dháia. *Gordon Walker, S. R.* § 104.

In the uplands the wells generally lie round the village site in a ring, the unirrigated lands being outside this. In some of the small villages of the Kheri *iláqa* (Samrála) practically the whole area is irrigated, and in most villages of this Tahsil upwards of 40 per cent. is regularly watered. As we go westwards the proportion gradually decreases to about 10 per cent. in Jagráon Tahsil, while the outlying villages to the south have no well-irrigation at all. The irrigated cultivation is best studied in Samrála, where it is in greatest proportion, and here it varies in quality from that in the rich *niái* land adjoining the site on which is deposited all the natural filth of the village besides what it receives from the manure heaps, to the land attached to distant wells, to which manure is with difficulty conveyed and grudgingly given. This *niái* circle comes so close to the site as just to leave room for a road. It may be said to be always under crop, and regularly bears two harvests in the year. In January or February, while the Rabi crops are growing, the fields selected for sugarcane are manured, watered and then ploughed, till the soil is reduced to a fine tilth, eight or ten inches deep.

Table 18 of Part B. shows the number of wells and the land they irrigate by Tahsils, for the year 1901-02.

Section B.—Rents, Wages and Prices

Price of labour. *Table 25 of Part B. Gordon Walker, S. R.* § 126.

There are only two or three large *zamíndári* estates in the District, and the cultivation is almost entirely by the proprietors themselves. The Settlement returns showed 21 per cent. of the cultivated area as in the hands of tenants, but the greater part of this is held by men who own other land. For the distribution of land between owners and tenants, see below (Chap. III).

When a proprietor has any spare land more than he can work, this is either let to a co-sharer who has not enough land of his own to support himself, or an agricultural partnership is entered into.

Zabti or crop rents.

Rents are fixed for the year about June 15th (*Nimánia*), but earlier and separately for cane and cotton. For the Kharíf crops (cane, cotton, maize, *charri*, *moth*, &c.) a cash rate on the crop is almost invariably fixed by agreement, and paid when the crop is ripe or nearly so, not beforehand. The reason is that if the crop is a bad one a liberal owner will sometimes reduce the rate fixed. The rent is calculated on the local measure, which is the *kachcha bígah* in the east, and the *ghumáo* or *kanál* in Jagráon and in most of the

CHAP. II, B. — Rents, Wages and Prices.

Zabti or crop rents.

Bét. The rent-rate is mentioned, and the amount to be paid is calculated on the known area of the field; or the ground is paced or measured with a rope. The cash rent only covers the harvest, except that sometimes a rate is fixed so as to include the wheat following the maize; but more generally a separate rent in kind is taken for the wheat. The land returns to the owner at once when the crop has been cut. Thus land is rented at the *Nimánia* for *charri* only; and the crop is taken. The proprietor must arrange for the winter ploughings necessary for the crop of next year, and he disposes of the land at once with this view; but the agreement has really effect from the next *Nimánia,* seven or eight months after, and would be for the Rabi after that. In some villages where the land is all much of one quality and the cultivation not very good (Muhammadan Rájpút villages mostly), the proprietors will rent their land at so much all round on the *kachcha bígah.* This saves trouble, to escape which is the great object in life of a Muhammadan landowner. A field is often rented for the cultivation of a single crop like cane, *charri,* &c.; but where a number of fields are rented in one holding (*láhna*), the rent takes the form of this general rate per *bígah,* or *zabti* rates are agreed on for certain crops and kind rents for others, the tenant raising the crops that suit him best; or again a lump sum (*chakota*) is fixed to be paid by the tenant as rent of the holding for the whole year, he having liberty to raise what crop he likes. A holding rented in any of these ways will consist of all sorts of land.

Bígah rates.

Rents for holdings.

Rents in kind.

Rents in kind are taken for the Rabi crops, rarely for cotton, and almost never for other Kharíf crops, except in Jagráon Tahsil. The straw is divided as well as the grain, and the proprietor takes a somewhat smaller proportion of the former than of the latter. The usual rates are half to two-fifths for unirrigated lands with one-third of the straw; and for irrigated, one-third of grain and one-fourth straw. *Batái,* or subdivision of produce, is a very simple process in this District. The tenant cuts and threshes the grain; and on an appointed day the proprietor comes to the heap for his share. The grain is measured out in a large earthenware jar called (*chátti* or *máp*) which holds about a *kachcha* maund (17 *seers pakka*), and the straw in arm-fulls. The proprietor then removes his share. If a *faqír* or other holy man appears, he gets a small portion, of which no account is taken. It says much for the intelligence of the people how entirely they have broken away from the very elaborate system of *batái* which prevailed years ago when the revenue was taken partly in kind. There are none of the elaborate calculations of allowances to the various menials, &c., such as are kept up in less advanced parts of the Province; and there are also none of the superstitious observances attending the division of the produce. Perhaps the most important feature of all is the absence of the special weighman of the shop-keeping class. The allowance to menials are described under Wages below pp. 148—150.

CHAP. II, B.

Rents, Wages and Prices.

Cash rents Gordon Walker, S. R. § 205.

The statistics of rent are contained in Appendices II *A.* and *B.* of the Settlement Report; and from these it will be seen that the proportion of the total area of the land paying proper cash rents is only 5 per cent. of the cultivation, that is after deducting from the areas shown in Appendix II *A.* land of which the rent is for various reasons merely nominal. These competition cash rents are shown in Appendix II *B.* The former rulers of the country took a large share of their revenue at rates on crops; and this revenue, which was a full rent really, has survived in the cash rates now paid for land taken for the cultivation of cane, maize, cotton and other crops. There are three methods of fixing cash rents. A portion of a proprietary holding may be let for the year at so much on the local standard of area without regard to the crops to be grown; or the area may be approximately known to both parties and a lump sum (called *chakota* or *chakáwa*) be agreed on without actual measurement. In the first case the area is subsequently paced out, and the rent of the whole calculated at the rate agreed on, a third party being called in to settle disputes if necessary. The third method is where a field or area is rented for the purpose of growing a certain crop, and a rent on the crop is charged at a certain rate on the local standard of measure, the area and rent being subsequently determined when the crop is standing. Between ordinary agriculturists, where the transactions are very small, one or other of these three forms of rent is adopted; but where there are large proprietors, such as the Kheri Sardárs in Samrála Tahsil, the old Sikh method of collecting revenue is still followed, and the tenant agrees to pay at crop rates on whatever he grows in the Kharíf harvest.

Rates of cash rents.

The rates of rent prevailing throughout the District do not differ very much. Irrigated land will everywhere in the Dháia pay from Rs. 2 to 3 on the *kachcha bígah, i.e.,* from Rs. 9-8 to 14 an acre. The rent of unirrigated land of ordinary quality is from Re. 1 to 1-8 a *kachcha bígah* (Rs. 4-12 to 7 an acre); but the poorer soils run as low as 12 annas and 8 annas. The proportion of these poorer soils is small, and on the average unirrigated land does not pay less than Re. 1 a *kachcha bígah*, or nearly Rs. 5 an acre. In the Bét the first two kinds of cash rent are almost unknown.

Crop rates.

The crops which ordinarily pay *zabti* or cash rents are cane, maize, cotton, in the irrigated uplands, and the first of these in the unirrigated lands of the Upper Bét; and in the unirrigated lands of the Dháia the autumn pulses and millets, whether sown for fodder or with a view to grain also. The lowest rate paid for sugarcane land is Rs. 2-8 a *kachcha bígah*, and this is only in the Bét. The average in the Dháia is about Rs. 3 or 3-8, while in a few large villages it runs as high as Rs. 5. The general rate is about Rs. 14 or 15 an acre. This rent is for the use of the land during one and a half years usually, as not more than one crop can be got into the two years besides the cane. The rates for maize and cotton are from Rs. 1-8 to 3 a *kachcha bígah*, and average about Rs. 10 an acre

CHAP. II. B. — Rents, Wages and Prices.

Crop rates.

in the Dháia, and something less in the Bét. For *charri* and the mixed fodder crops of the Kharíf Re. 1 a *kachcha bígah* is usually paid, unless the soil is poor, when the rate is as low as 8 or 12 annas; but on the other hand it may go as high as Re. 1-8. The usual rent for *rausli* land is not much under Rs. 5 an acre. In the Bét lands below Ludhiána, where there is some very fine market gardening, land will rent as high as Rs. 20 to 30 an acre; but the above rates are those usually paid throughout the District.

Rates of rent in kind.

The area returned as paying rents in kind is 10 per cent. of the whole cultivation. The rates prevailing are as follows:—In the Bét ½ of the grain is taken without a share of the straw; and sometimes ⅖ths where the land is irrigated; but even in the case of well lands the proprietor ordinarily realizes at the higher rate. A share of the straw is taken in a few villages. In the Dháia the rate for irrigated lands is ⅓rd of the grain with ¼th of the straw; and for unirrigated lands ½ of the grain is taken as often as ⅖ths, very seldon ⅓rd; while the proprietor's share of the straw varies from ⅓rd to ¼th. In addition to his proper share of the produce, the proprietor takes also a portion under the name of *kharch* or 'expenses.' In places, too, the proprietor takes from the tenant a portion of the revenue demand as well as a share of the produce.

Retail Prices. *Tables 26a & 26b of Part B.* Wholesale Prices.

Prices at the Revised Settlement will be found fully discussed in the Settlement Report, page 184.

Price of land. *Gordon Walker, S. R. § 196.*

Appendices V*a* and V of the Settlement Report (statistics taken from the *patwárís'* annual papers) give the average price per acre as Rs. 34, or 26 times the revenue demand, and the mortgage money secured per acre (with possession) as Rs. 32, or 28 times the revenue demand. The price which land will fetch varies a good deal over the District; and appears to be highest in Jagráon and the Jangal where the labour of cultivators is small, the revenue light, and the rate of rent in kind high. The great rise in the price of the inferior grains has also had probably something to do with this.

Wages of artizans. Price of Labour. *Table 25 of Part B.* Coolies.

A simple money wage is paid only in Ludhiána and the other towns. In Ludhiána masons and blacksmiths earn, if paid by the day, Rs. 10 to 12 a month; and carpenters a little more, Rs. 12 to 15. The rates are slightly lower in Jagráon, Raikot, &c. A common coolie is paid 2½ to 3 annas a day (Rs. 5 a month) everywhere. There is usually a good deal of work for coolies in carrying grain from the *saráis* and grain markets to the station. This is ordinarily done in hand-carts worked by a few coolies together (*rerí*). In the busy times of the trade 4 or 5 annas a day may be earned in this way, the payment being by weight. A number of men of the same class earn their living by grubbing grass in the neighbourhood and selling it in the city. These coolies are of all classes, agriculturists (Jats and Gújars) who have been driven to the work by the scarcity of the land, village menials, Kashmirís of the city, &c. As there are only single looms and no factories, wages for

CHAP.II,B.
Rents, Wages and Prices.
Weavers.

weaving are almost unknown. An apprentice gets his food and Rs. 1 to 2 a month from his master. A weaver will earn not more than 2 to 3 annas a day, purchasing his own material, and selling the piece when ready.

In the villages.

In the villages carpenters and masons, if employed by the day, get their food and 4 or 5 annas. Labourers at reaping time receive a bundle of crop as their wages; but it is seldom that such men are employed. An account has already been given in Section A of this Chapter of the manner in which the village servants are paid by the harvest. A coolie doing any odd job, such as plastering a house, gets his food and 1 to $1\frac{1}{2}$ annas for the day's work. Weavers are given the raw materials, and are paid by the piece.

Private servants (*káma nij*) receive Rs. 1 or 2 *per mensem* with their daily food from the *zamíndárs* by whom they are employed. They help in agricultural, as well as in other works at all times, but get no share of the produce. Labourers (*ládi*) only help the cultivator at harvest time, getting a sheaf every evening. The sheaf should weigh one maund *pakka*, and it will contain $\frac{2}{5}$ths grain and $\frac{3}{5}$ths chaff. Sometimes the cultivator will throw in a loaf and a cup of whey at *lassiwela*, but cash is not paid. People often join their relatives in harvesting and then they get their midday meal and some food at *lassiwela*, the relations helping them in turn with their own harvest.

The practice in vogue in the Dháia Nícha is that out of 300 maunds *khám* of produce 5 maunds *khám* are given to the Lohár (blacksmith) and 5 to the carpenter, while the rest, *viz.*, the barber, Chúhra, water-carrier and Chamár are given 20 *sérs khám* each. The practice in the Bét is that the proprietor takes $\frac{1}{4}$th of the whole for himself and from the remaining $\frac{3}{4}$ths gives 8 *chhatáks* each to the barber, blacksmith, carpenter and *rákha* who watches the field.

In Tahsil Ludhiána this payment is made per plough. There is no estimate of the area tilled by one plough as regarded as the measure. However the barber, water-carrier and Chúhra get 15 *sérs khám* each and the carpenter and blacksmith 25 *sérs* each. The potter only gets 10 *sérs khám*. The Chamár or cobbler is given 3 *sérs khám* per maund *khám* of produce. His duty is to supply the entire family of the *zamíndár* with shoes for the whole year. If he supplies shoes from a hide he will be given annas 2 per pair in addition to his dues. He will also have to supply two *charsa* (leather buckets) in the year: for each *charsa* he gets Re. 1 from the *zamíndár*, and he will have to do repairs for nothing. In brief there are no fixed rates at which village menials are paid. It depends on the position of the *zamíndár* and the place and time when they are put to work.

Kamíns or village menials.

In the following paragraphs will be found some account of the village artizans and menials (*kamíns*), and the allowances made to them. Under former rulers when the revenue was realized in kind

CHAP. II, B. — Rents, Wages and Prices. *Kamins* or village menials.

a small portion of the whole produce was first set apart for the *kamíns* and for some servants of the chief, and the remainder was divided between the cultivator and the *Sarkár* in the proportion fixed. With a cash demand this custom disappeared, and the *kamíns* now receive their allowances from the cultivating proprietors in a lump at each harvest. There is none of the elaborate division of the produce such as is customary in other Districts; and, even when a tenant pays his rent in kind, no deduction is made from the common heap; but each party gives his *kamíns* from his own house a fixed amount of produce and not a share of the whole. The tendency is for the cultivators to alter their agreements with the *kamíns*, and to cut the allowances down. In fact these allowances are generally ceasing to be determined by custom. The calculations made by the Settlement Officer gave the result, that of the whole produce from $\frac{1}{20}$ to $\frac{1}{16}$ was given to the *kamíns*, and the deduction that should be made on this account from the total produce was fixed at $7\frac{1}{2}$ per cent. It may be open to doubt whether any deduction at all was necessary, for a tenant paying in kind has to give to his *kamíns* a portion of the share left him by the proprietor; but it was not considered advisable to depart here again from the usual procedure. In places proprietors have taken advantage of the old custom and realize a proportion (1 or 2 *sérs* in the maund) of the total produce under the name of *kharch* over and above the share of the produce agreed on; but this, though nominally for servants and *kamíns*, is really only an addition to the proprietor's share.

Chamárs, Gordon Walker, S. R. § 128.

The most numerous of the village menial class are the *Chamárs*, of whom some account has been given in Chap. I. (page 64). These people have to perform certain tasks, of which the principal is the repair of all leather appliances (well-buckets, seed-drills, &c.), and of the cultivators' shoes; and they have also to repair the village gates, to collect grass and keep watch when any officer of Government comes, to carry bundles to the next village on such occasions, &c., &c. They have also to remove all dead cattle, and they are entitled to the carcases and skins of these. The *Chamárs* are paid full price for all new goods, shoes, buckets, &c.; and occasionally cultivate a piece of land, either alone or in partnership with a *zamíndár*. They generally receive as menials an allowance of grain per plough (about 30 *sérs*); also some cotton and *gúr*. These allowances are also, though rarely, made on the total yield (about one *sér* per maund). The Chamár families are generally divided amongst the sharers, say one to every ten houses of the latter.

Tarkhán.

The *Tarkhán* or carpenter in return for an allowance at harvest time has to execute all repairs, and also to make small things, like goads, yokes, &c., but for new ploughs, pitchforks and other implements of the sort he is paid in cash, the cultivator supplying the wood. He has a good deal of work about the wells, and a great deal at the presses (*belna*) in villages where sugarcane is grown.

CHAP. II, B. Rents, Wages and Prices.

Lohár.

The *Lohár* or blacksmith makes the ploughshare, the cultivator supplying the iron, and he also repairs all iron-work. Sometimes one man does the work of carpenter and blacksmith. The Tarkhán and Lohár receive allowances either on the plough or on the total produce (from a quarter *sèr* to one *sér* per maund).

Chúhra.

Where there are Chúhras they are only used for calling the people together or giving notice to any one who is wanted (*bulári*). The allowance is small, generally one-sixteenth to a quarter *sér* in the maund.

Jhínwar.

The *Jhínwar* or waterman has to supply baskets for the cane press, and gets a very small allowance (about $\frac{1}{16}$ to $\frac{1}{8}$ *sér* per maund). He also supplies water at marriages, but is paid for this specially.

Náí.

The *Náí* or barber performs personal services to the cultivator, cuts his nails, shaves him, &c., and receives much the same as the Jhínwar.

The plough (*hal*) on which these allowances are generally calculated is a variable measure; but, roughly speaking, where all the *kamíns* receive a full allowance, they absorb $\frac{1}{20}$ to $\frac{1}{16}$ of the gross produce. This is according to the administration papers of the villages; but the practice is really different. When the revenue was taken in kind a heap was set apart for the village servants (2 to $2\frac{1}{2}$ *sérs* in the maund); and this was divided amongst them according to their recognised shares. But with our fixed assessment this system could not continue, except where a proprietor takes rent in kind from a tenant. There has been a tendency to break up the constitution of the village in regard to these menials, the action being mostly on the part of the proprietors, for the *kamíns* are generally much too degraded to wish for any change, and are in the power of the proprietors completely, not having even the option of changing their abode when too hard pressed. The result has been that the proprietors attempt to cut down the allowances, and make new terms with the *kamíns*. In many administration papers a condition has been recorded that the relation of the proprietors to the *kamíns* is liable to annual revision, and in some villages there are no customary allowances or services at all; and, when a cultivator has any work to be done by one of the class, he pays for it in grain or cash. In many villages too the proprietor will not now allow the Chamár to have the skins, as the price of leather has risen very high in late years, and money is to be made out of them.

The *tola* or weighman.

The *tola* or *modi* corresponds to the *dharwái* of the Mánjha country. Under Sikh rule, and until very recently, he was the *patwári* in addition to his other numerous vocations. Besides his private business of shop-keeper, he managed the *malba* or village fund, and made out what were accepted as patwári's annual papers for Government.

CHAP. II, B.

Rents, Wages and Prices.

Poverty or wealth of the people.

It is impossible to form any satisfactory estimate of the wealth of the commercial and industrial classes. The figures given in Table 42 of Part B show the working of the income tax for the last seven years. The numbers affected by the tax are very small. It may be said generally that a very large proportion of the artisans in the towns are extremely poor, while their fellows in the villages are scarcely less dependent upon the nature of the harvest than are the agriculturists themselves, their fees often taking the form of a fixed share of the produce; while even where this is not the case, the demand for their products necessarily varies with the prosperity of their customers. Perhaps the leather-workers should be excepted as they derive considerable gains from the hides of the cattle which die in a year of draught. The following extract from Mr. Walker's report sketches the standard of living which prevails among the villagers.

Material condition of the people.

"If we are to judge by the standard of other parts of the Province I should say that the state of the agricultural population was one of very considerable comfort. They are a simple people, and have few wants. Their food is good, and they have enough of it; and they are, according to Indian ideas, well clothed and well housed; while their fine physique plainly shows that they do not suffer much from deficiency of nourishment, or from exposure to the elements. Amongst the lower menials in the villages (*Chamars*), and the classes in the towns which subsist by labour (notably the colony of weavers in the town of Ludhiána), there is at times a good deal of privation. The *Chamárs* have fixed allowances of grain which are assured to them; but the other classes mentioned receive a cash wage, which is very low, and are sufficiently fed only when grain is cheap.

Agricultural people of the Bét

" Amongst agriculturists the Muhammadans, as a rule, are improvident, and live a hand-to mouth existence; but their possession of the moist low-lands is an insurance against complete failure of the food-supply. The Gújars and Rájpúts generally have dealings with the money-lender, and pay him in kind; and this makes it impossible for them to keep stores of grain. Their credit is good, and they can unfortunately raise money whenever they require it on security of the land, so that they never want for anything. An ordinary house in the Bét is comfortable, but will not be found to contain much of value in the way of jewelry or dishes. The cattle used for agriculture are very inferior; but the milch kine are good, as there is plenty of grazing ground; and the principal wealth, at all events of the Gújars, consists of their buffalo cows. The Aráins and Awáns mostly get on without incurring debt; and I believe that the number of Gújars and Rájpúts who do so is daily increasing. There is also a fair proportion of men of all these classes who are able to advance money on the security of land. I have already referred to the Awáns as keeping carts that work for hire, and some Rájpúts have followed their example. The villages of the Ludhiána Bét derive great profit from the proximity of the city, in which there is a ready market for the sale of all sorts of miscellaneous produce. Although the money-lenders may seize on the grain, the straw is left; and in a year of drought this fetches a very high price, the people being able to sell it, and depend on the grass along the river and Budha Nála for the food of their cattle. In September 1883 straw was very dear and there was a constant demand for it on the part of the Jangal people. Many villages sold Rs. 400 or 500 worth within the last few days.

CHAP. II, C.

Forests.

Hindu Jats.

"The Hindu Jat is by nature provident. His house will generally be found to contain valuable property in the way of dishes, jewelry and clothes, besides a sum in hard cash. In the eastern parts the most valuable crops are the cane and maize; and these must be turned into cash soon after the harvest. But even here there is generally enough grain in store to last for a year. In the western villages (Jagráon and Pakhowál) the condition of the Jats is more than one of mere comfort. The houses are superior, there is a great display of jewelry and brass dishes, and the cattle are of a very high class. Almost every house contains a supply of hard cash; and the Rabi grain of two years (the Kharif does not keep well, and is not stored) is generally kept till the third harvest is secure. A common sign of wealth in a Jat is some masonry work about his house; either an archway, or the whole porch, or even the whole house, is built of burnt bricks. Masonry work is more common in the west than in the eastern parts; but most villages have some house of it. *Havelís* or mansions belonging to Jats who have made money in service or by trade are springing up in many villages. I have elsewhere given an account of the manner in which the Jats have monopolized the carrying trade. They are able to take up the greater part of the land that is mortgaged, and would have it all, but that there appears sometimes to be a foolish prejudice against a man mortgaging to his *sharík* or co-sharer, the idea of which appears to be that a man's indebtedness is not likely to be known, and he cannot be twitted with it, if his creditor is of the banking class. I need not do more than allude to the large fortunes made in trade by the mercantile classes in Ludhiána and the other towns.

"This state of comfort and prosperity is entirely the growth of recent years. Under the Sikhs the cultivator had little room for saving left; and there was no opening for trade or for remunerative investment of any sort. The prices of agricultural produce were low; and it was not till twenty or twenty-five years age that the improvement of communications raised them and brought a great deal of wealth into the district. This subject of prices is dealt with in Part II of this report, and it will be seen from what is written there that the great rise took place about twenty years ago, and that the average has remained very high ever since. The increase of wealth of the agriculturist has been accompanied by a good deal of extravagance shown in expenditure on marriage and other celebrations; and the sums commonly spent in this way are double or treble what they were thirty years ago. I have already alluded to the large sums paid for girls. The Jats of the eastern parts do not waste much money on such occasions beyond the actual price; but those of the west spend very large amounts on the celebration, and so do the Rájpúts. To an ordinary cultivator in the Jangal or Jagráon villages a marriage in his family often means the expenditure of Rs. 500 to 1,000, even up to Rs. 1,500, and smaller sums go in *hangámahs* or funeral feasts."

Section C.—Forests.

Forests, Table 27 of Part B.

The only forest in the District is a plantation reserve at Ludhiána under the Deputy Conservator of the Basliahr Forest Division. It consists of a long narrow strip of 197 acres planted in 1867-68, and is composed entirely of *shisham*. It is situated on the Grand Trunk road midway between the Sutlej and Ludhiána; the soil is *sáiláb* and subject to inundation by the Sutlej. The income derived from it in 1901-02 was Rs. 2,914. There is also a Rakh of 179 acres adjoining the Civil Station, part of which is laid

CHAP. II, E. Arts and Manufactures.

out with ornamental trees and flowering shrubs. Riding and driving roads intersect it in all directions. It is well looked after by the District Board, and produces an income of Rs. 1,187.

Section D.—Mines and Minerals.

Gordon Walker, S. R. § 18.

The only mineral product is *kankar,* found in sufficient quantity at convenient sites, so that there is no difficulty in obtaining a supply for the metalled roads and for lime. Saltpetre used to be made in a few villages; but the manufacture has been given up.

Section E.—Arts and Manufactures.[1]

I.—Hand Industries. Sugar industry. *Gordon Walker, S. R,* § 138.

The principal manufactures for export are the *gur* and *shakar* (raw sugar) made by the cultivators everywhere in the Dháia from the sugarcane; the *khand* or *búra* (refined) made at Máchhiwárá and in its neighbourhood, and the cloths of Ludhiána. An account of the process of manufactures has already been given in Section A. There are about 70 *khánchís* in Máchhiwárá, and 30 more scattered over the Bét belonging mostly to Khatrís, but also to Bániás, Súds and even Jats. The outturn of each press is estimated at upwards of Rs. 2,000 value in sugar (*búra khand*) and treacle (*sírah*) and in a good year for the trade, when sugar is dear, the contents of a *khânchí* may be worth Rs. 3,000.

Leather. Factories. *Table* 28 *of Part B.*

In Ludhiána town tanning is carried on by some few families of Khatiks who purchase the skins of slaughtered animals and prepare them for use. The prepared leather is worked by Bángrus and Mochis, and there is a large increasing trade in native shoes which are exported to the United Provinces and to Madras in considerable quantities. The price per pair runs from annas 14 to Rs. 2. The leather industry is confined to shoes, no saddlery being manufactured. In the villages the Chamárs are as usual the tanners and leather workers, making shoes, *charsás,* whips, blinkers, etc., for their villages. The cost of the shoes made by them is from annas 4 to annas 8 per pair.

Pottery.

The pottery of the District is of no particular importance. The industry is carried on by Kumhárs, Hindú and Muhammadan, who make the articles in common domestic and agricultural use. The Hindu potters also make toys in the form of gods, men and animals which they sell at the fairs held in the District. Muhammadan potters are of course forbidden by their religion to engage in this branch of the industry. There are 4 or 5 brick kilns (*áwá*) in Ludhiána turning out small bricks measuring $6 \times 4 \times 1\frac{1}{4}$ inches which command ready sale at from Rs. 2 to Rs 2-12 a hundred. Large bricks $(10 \times 5 \times 3)$ are made in the Bull patent kiln and sell at Rs. 10 per hundred.

(1) This section was supplied by Khwája Ghulám Mohi-ud-dín, Honorary Magistrate and leader of the Kashmiri community.

CHAP. II, E.

Arts and Manufactures.

Wool.

Fleeces are largely procured in the District, there being over 35,000 sheep in 1902. The sheep are shorn twice a year, in April and October, having been previously washed (without soap or dip of any kind) in the nearest river or tank. The thread is spun by means of the ordinary *charkhá* or spinning wheel and it is woven on a loom somewhat stronger and coarser than that used for cotton but otherwise similar. Black blankets are made largely in Ludhiána Tahsil by Mazhabís and Chamárs, and are purchased as horse blankets by native cavalry regiments as well as being in demand by the cultivators of the District. Check and white blankets are made by the Muhammadan butchers of Jagráon. There is a small manufacture of *numdahs* in Ludhiána.

Pashmína.

The *pashmína* industry is that for which Ludhiána is chiefly famous. The Kashmíri colony, from whom the bulk of the artizans are drawn, are said to have arrived at Ludhiána in 1833 when there was a famine in Kashmír, but the trade is now also largely followed by Punjabis. The raw material is of two classes—*pashm*, or the fine wool of the Tibetan goat; and *Rámpúri ún*, or that of the nearer hills. Both wools are brought finally from Rámpur, which appears to be the *entrepôt* of the trade, by the Gaddís or hill-men, and now generally reach Ludhiána from Ambála by rail in November or December. The wools are also imported from Amritsar. A third class of wool is imported from Kirmán, in Persia, *viá* Karáchi and Lahore; socks and gloves are made of this wool which is not used in the manufacture of *chádars* or shawls. The annual amount of the sales of these wools is estimated at Rs. 25,000. The purchases are made in the first instance by Hindu merchants who take large amounts and retail them to a second class of traders, or to the Kashmíri and Punjabi. The wool is spun into thread by women of all classes, Hindu and Muhammadan, rich and poor; and any woman can earn from one to three rupees a month by this. The maker gets a few rupees worth of wool or thread from the merchant (*mahájan*) and has it woven into an *alwán* or piece 6 to 14 yards long and 1½ yards wide. It is white in colour when it comes off the loom, but may be dyed red, yellow, green, &c., according to taste. Of this *alwán* are made *chádars* which are purchased by well-to-do natives for wearing over the shoulders like an ordinary cloak, the piece being cut into two lengths of about 3 or 4 yards each, which are joined at the corners and worn double. The value of the *chádars* exported yearly is about Rs. 30,000, most going to the United Provinces and Lower India.

Rámpur *chádars*.

Rámpur *chádars* are made of pure wool in two sizes; one 4 yards by 2 yards, the best quality selling at Rs. 60 and the second at Rs. 25 each; the smaller size is 3 yards by 1½ and sells at Rs. 20 a piece for the good quality and Rs. 10 for the inferior. The best quality are known as viceregal *chádars* or ring shawls. These *chádars* are sold all over India, and the value exported is estimated at Rs. 15,000 yearly.

CHAP. II. E.
Arts and Manufactures.
Shawls.

The shawl industry (*shál-báfi*), or weaving from *pashm* thread of Kashmír shawls was originally perhaps the most important branch of all; but it has never recovered from the complete stoppage of the trade in these articles caused by the Franco-Prussian war. It is said that there were upwards of 1,000 Kashmíris engaged in it before that time, and an annual outturn of more than Rs. 1,00,000 worth of shawls; but France was the principal customer, and has ceased to take any since 1870. There are now only 10 Kashmíris who turn out the *kamarbands* worn by Native Cavalry. All the shawl work now done is in coarse wool, and known as *jámewars;* they are used as door hangings and given to menial servants as presents. They fetch only Rs. 4 a pair. There appears now to be no demand anywhere for good shawls. Native States used to take them for dresses of honour, &c., but do not now do so to anything like the same extent, and the *pashmina* trade is on the whole on the decline.

Stockings and gloves.

Stockings and gloves are knitted at Ludhiána, chiefly of Kirmáni wool. The annual value is estimated at Rs. 400.

Dyeing.

There are three or four Kashmíri dyers in Ludhiána town who dye *pashmína chádars* and thread. They can dye red, blue, yellow, *kháki*, green and other light colours.

Cotton.

The other important industry of Ludhiána town is the manufacture of cotton stuffs. The cotton is cleaned, spun and prepared for the weaver in the usual way. Ludhiána is famous for its *lúngís* and *patkas* (two descriptions of turbans) embroidered with gold thread. The unembroidered parts are imported from Hoshiárpur and embroidered in Ludhiána. Nearly every Native regiment wears Ludhiána-made *lungís* and there is a greater demand than the industry is at present able to meet. Technically these goods are excellent in colour and texture. A plain *patka* costs from annas 12 to 5 rupees, and for *lungis* the prices range still higher. The "rich colour and close and soft texture" of the Ludhiána *lungis* were noticed by the Jury at the Punjab Exhibition.

Lúngis.

Gabrún.

The town of Ludhiána is also famous for its check cloths called *gabrún* and for these goods there is a yearly increasing demand. These cloths are exported all over India and are worn in the hot weather by Europeans as well as natives. They are woven in pieces of about 20 yards long and about one yard wide, fetching from Rs. 2 to Rs. 6 a piece. The weaving is smooth and even, and English and American cotton yarns are worked up. These *gabrúns* scarcely seem to be as well known among European residents in the Punjab as they deserve to be, the Basel Mission at Mangalore and other works in distant parts of the country being indented upon for goods which could be equally well supplied from Ludhiána.

Other cotton cloths.

Coarse cloths known as *khadar* and *dasúti* are made in the villages in large quantities and command a ready sale in Ludhiána town. The towns of Máchhiwárá and Bahlolpur are famous for

CHAP. II, E. Arts and Manufactures.

súsi cloth. There are a few makers of *durries* in the town. Towels, handkerchiefs, *khes* and other stuffs are made in the villages.

Cotton prints.

There are a few Chhímbás in Ludhiána town who stamp cotton cloths in colours, the finished articles being chiefly used as bed quilts (*líháfs*). The industry is also carried on at Raháwan in Samrála Tahsil.

Dyeing.

A great deal of English cotton yarn is dyed at Ludhiána for the manufacture of *lungis* and *gabrúns*. The chief colours dyed are blue, *kháki*, bottle green and yellow.

Embroidery.

Embroidery in silk or gold thread on *pashmína*, merino, cotton and broadcloth is carried on in Ludhiána town by both Kashmíris and Punjabis. The work is of two kinds. The first, called *kár-chobi*, is a coarse work done on a frame, and is chiefly used for table covers and centres, door hangings, cushions, etc. It is chiefly done by boys of from 7 to 14 years. In the second kind of embroidery, called *dori*, the thread and work are finer. Some silk *lungis* are made, but owing to their cost they are going out of fashion. Helmet *pagris*, both plain and with gold fringes, are made in Ludhiána and exported all over India. There used to be a considerable outturn of *phulkáris* embroidered with silk, but the industry has decayed, being unable to compete with the superior articles produced in Jhelum and Ráwalpindi.

Ivory. Monograph 1900.

Ludhiána and Jagráon are the chief centres of ivory turning in the Province. There are some turners (*chúrigars*) in these towns. They are Quraishis by race and the profession is hereditary. The organization of the trade is simple, the turner working at home and selling his work either to order or to casual customers. The tools used are described in the Monograph on Ivory carving in the Punjab by Mr. T. P. Ellis. This is the only District where billiard balls are manufactured. The trade in India is small owing to benzoline balls being preferable, and what trade there is, is mostly export to Europe where it has to compete with firms who have the advantage of using material already seasoned to the climate of the market. The turner of billiard-balls can at most produce one set of three per day; the value of the ivory employed in a set is from Rs. 16 to Rs. 18. A turner receives when working for a trader Rs. 3 a set. The balls are sold at Rs. 30 per set of three. Ivory bangles (*chúri*) are turned at Ludhiána and Jagráon. The amount of work that an efficient worker can do in a day is large, he being able to produce about 8 sets of coloured bracelets a day, containing some 160 to 240 separate rings; the profits however, are small, amounting to not more than $1\frac{1}{2}$ anna per set, *i.e.*, 12 annas a day represents a workman's earnings. The supply of ivory is obtained through Amritsar agents from Burma, South Africa and Zanzibar.

CHAP. II, E.

Arts and Manufactures.

Wood carving.

The wood carving of the District is not important. Carved door frames such as are seen in the houses of well-to-do Hindús are of some artistic value and specimens of these were solicited for the Durbár Exhibition of 1902. Small articles of carving are also made.

Silk.

According to Mr. Cope of Haridi, in a letter written in 1858 and published in the Journal of the Agricultural and Horticultural Society of India, an attempt was made to introduce the silkworm at Ludhiána by Colonel Sir Claude Wade. He formed a mulberry plantation near his house and it is known that he succeeded to the extent of producing some ten seers of silk during the two years he carried on the experiment, which however was abandoned on his transfer to Kábul. "It is averred by one person that the silk wound by Colonel Wade was converted into silk stuffs at Ludhiána, while according to another authority it was sent to England. Nothing is therefore known of the quality, but it is certain that the worms he reared were the annual ones, as these only are found in the Hill State."

Nothing further was ever done in this direction, and there is now no silk industry in Ludhiána beyond a certain amount of embroidery.

Oil pressing.

Rapeseed (*sarson*) is largely grown in the District, the annual output being estimated at over 150,000 maunds. It is either pressed in the village presses (*kohlu*) or the seed brought into Ludhiána; and large quantities are imported in seed from the United Provinces. The oil is exported largely to Europe.

Iron.

There is a considerable trade in iron at Ludhiána and Jagráon. The village of Raháwan in Samrála Tahsil is noted for its iron locks and implements, and Samrála and Dhenri for iron implements.

Brass and copper.

The brass and copper industry of the District is not on the whole important, and goods of this kind are largely imported from Delhi. Jagráon, however, is famous for its brass vessels, and there are several villages in the District locally celebrated for this industry, such as Lalton and Sehna for vessels of brass and *kánsi*.

Carpentry.

The carpenters of Ludhiána are famous for good work, and chairs, tables, doors, door-frames, &c., are largely made. Carriages and carts on European models used to be made but the industry is now extinct; there is one shop in which rickshaws, such as are used by Missionaries in the plains, can be made.

Other hand manufactures.

Ropes of false hemp (*sankokra*), mats, sacks, twine, and netting (*lengar*) are made in the villages by Jats, Labánás, Sainis, Bauriás, Mahtams and Chúhrás.

Gold and silver.

Makers of gold and silver ornaments are found in most of the towns and villages of the District, those of Máchhiwárá being the most celebrated. There are only a few who can cut, polish and set gems.

CHAP. II, F.

Commerce and Trade.

Factories: *Table* 28 *of Part B.*

The only factory in the District is that for ginning cotton at Khanna. It is worked by steam and employs 100 hands.

Effect of European competition on local industries.

There is no doubt that English and factory-made cotton cloth is displacing certain sorts of native cloth. The English cloth is cheaper and English colours and patterns attract the people so that even *zamíndárs* have taken to English cloth. All agree that native cloth is more durable, but fashion and cheapness weigh more in their eyes at present than durability. The manufacture of native *abra* or *chanda* and *súsi* has been unfavourably affected by English cloth, chintz more especially taking its place. This has so affected the dyers in some places that they have thrown up their profession and taken to washing, tailoring and even agriculture instead. Machine-made iron work has also affected the Lohárs. Native locks have come down in price and will probably be replaced by factory-made or foreign locks. Foreign or Indian factory-made sugar is displacing native sugar to some extent. It is said that the machine-made *belna* does not turn out as clear sugar as the old wooden *belna*. Native-made sugar, however, still remains popular in the Native States. The Mochis also are affected by the competition of factory-cleaned and dyed leather.

Mills.

There are four large flour mills at Khánpur, Chupki, Akálgarh and Akhára on the Abohar Branch, and one at Jaghera in the Bhatinda Branch of the Sirhind Canal.

Section F.—Commerce and Trade.

A rough estimate of the total production, exports and imports of food grains was also framed for the Famine Report of 1879; and it was stated (page 151) that an annual surplus of some 4 lakhs of maunds was exported by rail eastwards, consisting chiefly of wheat and gram, with *jowár* and maize in smaller quantities. Mr. Gordon Walker wrote in 1884:—

Exports.

"The District is self-feeding, and exports a good deal of food. The superior produce of the eastern half (sugar, cotton, wheat) is nearly all exported; but in place of this there is a large import of inferior grain (*berra* or mixed barley and gram, *jowar, moth,* &c.) from the Native States of the south, and our own villages of the western parts. There is a very extensive export of these inferior grains from the western half of the District, principally by the railway which passes through it."

The imports and exports of the District may (in 1903) be summarised as follows:—

Imports.

Piece-goods are imported from the Bombay Presidency, Karáchi, Amritsar and Cawnpore; gold and silver lace and cord, braid, cotton and worsted, buttons (gilt and brass), military dress materials, regimental necessaries, billiard cloths and accessories, and medal ribbons from England; sugar (both *khánd* and *gur*) from the Jullundur Doáb; iron from Karáchi, salt from Jhelum District,

CHAP. II, F.

Commerce and Trade.

brass and copper-ware from the direction of Delhi; *berra* (mixed barley and gram) from the Native States to the south of Ludhiána; rice from Amritsar, Multan and Sahāranpur.

Exports.

Wheat is exported to Europe by Messrs. Ralli Brothers, Sanday Patrick and Co., and J. M. Clements and Co.; *mung*, *jowár*, maize and rapeseed oil to the United Provinces and Lower Provinces of Bengal. Goods made of *pashm*, Ludhiána cloth (*gabrún*) and coarse cloth such as *dasúti* and *khadar*, and woollen socks and gloves to all parts of India.

Course and nature of the trade of the district.
Gordon Walker, S. R. § 139.

It is difficult to describe the trade of the District apart from that of the country about; but the course that it takes is roughly as follows. The surplus produce of the western villages, consisting of gram (alone or mixed with barley or wheat), and the autumn millets and pulses, is brought up to the line of railway for export from the District, or finds its way into the eastern villages for consumption there. Very little of the *gur* produced in the eastern parts is consumed in them; and most of it is brought up on the spot by trading Jats from the Jangal or Málwa country, and taken away in carts or on camels, none of it going by rail. There is no demand for *gur* from the direction either of Lahore or of Calcutta, as those parts have their own supply. The sugar (*bura* and *khánd*) of Máchhiwárá and its neighbourhood is brought up on the spot in the same way as the *gur* or is brought to the railway at Ludhiána, and finds its way northward, as it is not made beyond the Beás, and is in great demand with the sweetmeat-makers of Amritsar, Lahore, Multan, &c. There is a very considerable import of sugar, both *gur* and *khánd*, from the Jullundur Doáb also, especially into the Jagráon Tahsil from the neighbourhood of Nakodar. Most of the cotton of the eastern parts is exported, but does not generally take the railway on account of bad packing and consequent high rates of carriage. It is either taken back by the trading Jats in their carts, or carried by merchants in hired ones to Ferozepore, whence it goes down the Sutlej in boats. There is also an export of wheat from the eastern villages, the cultivators living on the inferior grains, some of which (maize, *massar*, &c.) are produced in the Tahsil; but there is also a considerable import of gram, pulses, &c., from the west to supply the place of the wheat.

Trading classes.
Gordon Walker, S. R. § 140.

The trade from the west is entirely in the hands of the Jats, who bring the grain in their own carts, and dispose of it themselves either at Ludhiána to the regular grain merchants, or in the villages. A Jat would not part with his grain on the spot, even if it were the custom for the merchants to go about the country, for he expects to get a better price at Ludhiána, and his cattle would be idle if he did not employ them in carrying. The return trade of sugar, cotton, &c., is carried by the carts that bring the grain, and these seldom go back empty; and in such transactions the regular merchant has no share at all. It has already been explained that the Jats of the unirrigated tracts to the south-west have a great deal of spare time, which they devote to trade; but that those of the east are tied down to their villages. Nearly all the *gur* and *shakar* sold in the District is brought up by the trading Jats from the cultivators. The trade in the finer sugar products (*khánd* and *bura*) made in Máchhiwárá and its neighbourhood is entirely in the hands of the mercantile classes. A cultivator from Samrála Tahsil may make an expedition for three or four days with his cart in search of grain when prices rise; but he cannot get far, as his crops would suffer. The cotton is either sold to some Jat who visits the village, or is bought up by the petty local traders who keep it

CHAP. II, G — Means of Communication.

till the regular dealers come round, as they generally do to the larger towns and villages once a year. The grain on coming to Ludhiána is purchased from the Jats by the regular grain merchants, mostly men who have come as representatives of firms in Delhi, Muzaffarnagar, Meerut, Sahåranpur, &c. There is also a considerable proportion of residents engaged in the trade.

Extent of trade. *Gordon Walker, S. R.* § 142*a*.

"It is impossible to give any accurate estimate of the extent of trade of this District. Ludhiána railway station is the centre of trade for a very large tract of country, embracing most of the Ferozepore District, and a great part of the Phulkián States; and any attempt to determine how much of the grain trade coming along the Ferozepore and Kotla roads belonged to this District would be mere guess work. The cotton from the east also for the most part comes from Ambála District, the centres of the trade being Korali and Morinda; but Samrála Tahsíl contributes something. The number of carts coming in this direction is never very large, the busy time being February and March. On the other hand, the press of traffic on the Ferozepore road is sometimes tremendous. It is pretty constant, the slack months being July—September, when the bullocks are generally sent out to graze; and the busiest, May—July, when those who engage in trade in addition to agriculture are all on the road, and the granaries are all open. In May and June the road from Dákha to Ludhiána is one long line of carts. Information is available as to the amount of grain that enters the municipal limits of the town of Ludhiána (which embrace the railway station), and also as to the amount that takes the rail at this place; but it is not possible to collect any as to the trade between the Jats of the west and the cultivators of the eastern villages. The carts of the former struggle into the villages in great numbers, the owners sell their grain where they can, and then collect loads of *gur*, cotton, *san*, *kikar* and other wood for rafters, anything that will sell down in their own country. The carts never return empty. In disposing of their grain they may first try Ludhiána; and, if not successful there in getting a good price, go on to the villages, and even find their way into the hills sometimes."

Section G.—Means of Communication.

Rivers and canals.

Since the opening of the Sirhind Canal the Sutlej has ceased to be navigable except during the rains.

Ferries.

There are ferries on the Sutlej under District Board management at the places marginally noted. The District Board pays an annual rent of Rs. 3,500 to Government for these ferries and sells the lease of each by annual auction in February. In 1903 these leases realised Rs. 5,395 while supervision cost the Board Rs. 552. Between the ferries of Kariána and Khera comes the Phillaur ferry, managed by the North-Western Railway.

Sherpur 28 miles from Ludhiána.
Jadwál 4½ miles on.
Khánpur 5¼ miles on.
Chaimla 5¼ miles on.
Jawála Mazra 2¼ miles on.
Mattewára 2¼ miles on.
Lisára 3¾ miles on.
Kariána 32¼ miles on.
Khera 8 miles on.
Bhundri 2½ miles on.
Sidhwán 5 miles on.
Tihára 6 miles on.

CHAP.II,G.

Means of Communication.

Ferries.

The whole of main line of the Canal 39 miles, of which 13 are in this District, is navigable. There are no locks on it. The Combined Branch is navigable for two miles, and the Abohar Branch for 48, of which 37 are in this District. The Bhatinda Branch is not navigable. Thus the Canal forms the most convenient route for both travellers and merchandise, from Rúpar to the North-Western Railway Station at Doráha and for merchandise alone right through to Ferozepore. The principal goods carried are timber, building materials and grain. The Canal Department keeps several house boats on the Canal which are sometimes available for travellers through the courtesy of the Canal Officers.

There are several locks on this Branch as shown in the margin.

Name of lock.	R. D.	Distance between	
Bhawáni Head Regulator	Head	...	Patiála.
	...	4+3,000	
Khánpur	4+3,000		
		4+4,000	Ludhiána District.
Chupki	9+2,000		
		4+2,500	
Balowál	13+4,500		
		7+ 500	
Akálgarh	21+		
		4+3,000	
Tugal	25+3,000		
		5+4,000	
Akhára	31+2,000		
		4+3,000	
Dalla	36+		
		6+3,000	Ferozepore.
Dandhar	42+3,000		

Canal crossings.

The following is a list of the places in this District where the Sirhind Canal and its Branches can be crossed :—

R. D. Miles.	Feet.	Bridges and Ferries.
		MAIN LINE.
18	1,100	Bahlolpur Bridge.
21	0	Powát Bridge.
22	4,645	Ratipur Ferry.
25	4,180	Garhi Bridge.
29	620	Dhandly Ferry.
31	2,000	Nillon Bridge.
33	1,460	Katáni Ferry.
35	2,600	Rámpur Bridge.
36	3,538	North-Western Railway Bridge.
37	2,500	Grand Trunk Road Bridge.
39	0	Mánpur Regulator and Bridge end of the Main Line.

CHAP. II, G. Means of Communication.

Canal crossings.

R. D. Miles.	Feet.	Bridges and Ferries.
		ABOHAR BRANCH.
(1) 0	...	Regulator and Bridge.
1	4,796	Bhagwánpur Ferry.
4	3,000	8' Fall and Bridge and Lock.
5	3,800	Gawaddi Bridge.
8	3,500	Bul Bridge.
9	2,000	Chupki 8' Fall, Bridge and Lock.
9	3,933	Ludhiána-Dhuri-Jakhal Railway Bridge.
11	4,719	Assi Foot Bridge.
13	4,500	Ballowál 8' Fall, Bridge and Lock.
16	1,021	District Road Bridge.
18	3,612	Sahoki Foot Bridge.
21	0	Akálgarh 8' Fall, Bridge and Lock.
22	1,000	Sadhár Foot Bridge.
25	2,000	8' Fall, Bridge and Lock.
24	2,019	Tegal Ferry.
27	3,350	Hans Foot Bridge.
28	1,135	Bardeki Ferry.
31	2,000	Akhára 6' Fall, Bridge and Lock.
36	0	Dela 8' Fall, Bridge and Lock.
38	2,070	Rasúlpur Ferry.
		BHATINDA BRANCH.
0	...	Regulator and Bridge.
6	2,250	Khatra 8' Fall and Bridge.
8	344	Botári Foot Bridge.
10	39	Jhamat Foot Bridge.
11	3,900	Jaghera 8' Fall and Bridge.

(1) The Zero from which Reduced Distances are measured on the Abohar Branch is at the Regulator at the Head of the Branch.

Railways.

The North-Western Railway enters the District from Phillaur by the Sutlej bridge and runs through it for about 35 miles in a south-westerly direction. The stations are Ladhowál, Ludhiána, Sahnewál, Doráha, Cháwa, and Khanna, of these Doráha is in Patiála territory. The Ludhiána-Dhuri-Jakhal Railway has its terminus at Ludhiána and runs through the District in a southerly direction with stations at Gil, Raikot Road, Chappár and Kup. A line from Ludhiána *viâ* Ferozepore and Fázilka to McLeodganj is now (1904) under construction.

Roads.

Generally speaking the roads of the District are very good. All the larger towns are united up by roads, whether metalled or not, over which wheeled vehicles can travel easily and fast. *Shigrams*, *ekkás* and *majholis* are used by travellers while agricultural produce is generally carried in bullock carts.

The following roads are maintained by—

No.	Roads.	Length.	REMARKS.
	A.—PROVINCIAL REVENUE.		
		Miles.	
1	Grand Trunk	35	
2	Ludhiána-Ferozepore	26	
3	Civil Station	10	Managed by the District Board for Rs. 1,570 per annum. *Vide* Punjab Government Resn. No. 1171 of 27th June 1892 (Financial Department).

CHAP. II, G.
Means of Communication.
Roads.

No.	Roads.	Length.	REMARKS.
	A.—DISTRICT FUNDS.		
	METALLED ROADS UNDER DIRECT MANAGEMENT.		
		Miles.	
1	Samrála-Khanna	5	
2	Ludhiána-Kohára	10	
3	Sahnewál-Kohára...	2·5	
4	Jagráon-Raikot	13·75	
5	Jogi Mazra-Malaudh	4·09	
6	Chakkar-Jamálpur	2	
7	Bágrián	2	
	Total ...	34·34	
	METALLED ROADS MANAGED BY PUBLIC WORKS DEPARTMENT MAINTAINED BY DISTRICT BOARD.		
1	Kohára-Samrála	11	Nos. 136 and 138, dated 20th January 1899. For Rs. 2,459.
2	Samrála-Máchhiwárá	6	Nos. 178 and 180, dated 26th January 1899. For Rs. 1,444.
3	Ludhiána-Kotla	17·5	Nos. 1264, dated 13th July 1884, and 1442 and 1444, dated 27th July 1902. For Rs. 14,107.
4	Dháka-Raikot	15·0	
5	Jagráon Tahsil to city	2	
6	Nábha Railway Approach Road...	·81	
7	Cháwa " " ...	1·5	
8	Sahnewál " " ...	·22	
9	Khanna " " ...	·28	
	Total ...	36·41	
	METALLED ROADS CONSTRUCTED BY PUBLIC WORKS DEPARTMENT MAINTAINED BY DISTRICT BOARD.		
10	Gill Railway Approach	Not yet measured.	No. 1539, dated 30th June. For Rs. 950.
11	Chappár " "		
12	Raikot " "		

Unmetalled roads under District Board.

The principal unmetalled roads are:—

1. Ludhiána to Raikot, commonly called the Lalton road, 22 miles: planted with roadside trees throughout, a few sand-drifts near Tapur, otherwise good for wheeled traffic: in use.
2. Ludhiána to Tihára, the old Ferozepore road, 26 miles. Fit for wheeled traffic as far as Bar Nahala, one or two sand-drifts near Malakpur, Haibowál Kalán and Rájpura: in use.
3. Ludhiána to Núrpur: 7 miles village road, in fair condition.
4. Ludhiána to Mattewára, on the banks of the Sutlej, 9 miles: planted with trees throughout. Fit for wheeled traffic. Small sand-drift near Ludhiána on the further side of the Budha Nálá, used largely as terminus with ferry.
5. Jagráon to Sidhwan, 8 miles: planted with trees throughout: raised for wheeled traffic, in use; ferry at river connecting with Jullundur District.
6. Jagráon to Ghalib, 5 miles: planted with trees: a village road.
7. Jagráon to Hathur, 13 miles: village road.
8. Jagráon to Tihára, 9 miles.

CHAP.II,G.

Means of Communication.

Unmetalled roads under District Board.

9. Máchhiwárá through Sahnewál and Pakhowál to Raikot, 36½ miles: much used from Kohára to Raikot: fit for wheeled traffic; it is under consideration to metal the portion between Sahnewál and Raikot; thereby connecting all three Tahsíls by metalled roads.
10. Samrála to Bahlolpur, 10 miles: village road.
11. Samrála to Kheri, 14 miles: village road.
12. Samrála to Isru and Khanna, 19 milles: village road.

Bridges.

The bridges are as follows:—

1. Masonry bridge over the Budha within municipal limits on the Grand Trunk Road to Phillaur: managed by Public Works Department.
2. Iron Railway Bridge over the Budha within municipal limits; under Railway management.
3. Masonry and iron bridge over the Budha Nálá at Máchhiwárá; under District Board.
4. Masonry bridge over Budha Nálá at Bahlolpur; under District Board.

Means of carriage.
Gordon Walker, S. R. § 141.

Mr. Gordon Walker wrote in 1883:—

Samrála...	...	310
Ludhiána	...	2,881
Jagráon...	...	2,373

"The District returns show 11,659 carts belonging to people of the District; but I think that this includes the ordinary carts used for agriculture. We have entered in the village note-books the number of carts 'working for hire,' that is, those going to Ludhiána and beyond it with loads of grain, &c., (*dasáwarwála*), and the total of these entries is 5,564 distributed as shown in the margin.

Prices and Communications.

"This return is probably not far out. It will be observed that there are very few in Samrála; and those of Ludhiána all come from the south-west. The cart used in the carrying trade is a development of the ordinary field cart. I am told that twenty or thirty years ago, when the carrying trade was in its infancy, carts of the size now generally used were almost unknown. When the people began to make trading expeditions they fixed to their carts a wooden frame, wider at the top than below; and lined this with the old stalks of the sugarcane, cotton twigs, cloth, &c. But an ordinary cart of this sort, drawn by two or three bullocks, could only carry fifteen maunds (*pakka*) of grain; and it was not long before the advantage of widening and lengthening the carts was seen; and they are new, at least most of those that come from the west, of a very superior pattern, drawn generally by five bullocks, and capable of carrying forty to fifty maunds of grain. The frame work of the sides is very strong, and lined with *tát* (called *tapar*) or matting made of *san*. Over the top is kept a thatch of *munj* reeds; or, if the owner can afford it, a thick carpet of wool, called *khar*, woven for the purpose. The latter is a perfect, and the former a partial protection from the rain." A first class cart will cost with all its appliances Rs. 100, and five bullocks, Rs. 250 to 300. Of course there are still a great many carts working, which are not of the first class. Along the metalled roads the carts go easily, and they can cover 20 miles, or two stages in 24 hours, but they have generally considerable distances along ordinary district roads before these are reached, and it requires at least the five bullocks to drag them even slowly through these. On the Ferozepore road one or two of the bullocks are generally to be seen tied up behind as a reserve. The heaviest loads come from the Ferozepore District (Moga and Zíra), as the country to the south of Raikot is so very sandy that not more than about 300 maunds

CHAP. II, G.
Means of Communication.
Prices and Communications.

can be brought up to this place. A metalled road from Raikot to Sahna would be a great benefit. The Jat cartmen either devote the whole of their time to carrying, or only what they can spare from agriculture, which are the busy months of the grain trade. In the former case, the cartman is either a member of a family who have a joint holding, or he mortgages his land to another cultivator, getting a lump sum down for the use of it which he is always able to repay. The grain carried almost invariably belongs to the man who owns and drives the cart, for the Jats will not work for hire or carry for dealers. The cart is filled partly with the grain grown in the holding to which the cart belongs, and the load is made up by purchaser in the village, or in others about.

"Camels come direct to Ludhiána from the Jangal villages by the unmetalled roads, carrying grain; and return with *gur*, salt, &c. They are useful where the roads are particularly sandy, and only a small load could be brought on a cart, a camel load is about six to eight maunds. Donkeys are used for bringing grain, *gur*, &c., from short distances into Ludhiána, eight or ten miles. A donkey carries 1½ to 2 maunds. In 1879-80 the Deputy Commissioner supplied to the Transport Department 3,500 camels, 838 carts, 100 mules, 123 ponies, and 2,302 camp-followers drawn in part from the Native States across the border.

Encamping grounds and *Saráis*.
Gordon Walker, S. R. § 149.

"In Ferozepore and Ambála roads are a good deal used by troops marching in the cold weather, and there are encamping-grounds at Jagráon, Dakha, Ludhiána, Duráha-ki-Sarai (in a slip of Patiála territory) and Khanna, with the usual supply-house and *sarái* at each. There are several large private *saráis* in Ludhiána city, and one built by a benevolent native in Jagráon. There is a fine old imperial *sarái* within a few miles of Khanna on the Ludhiána road. It is called Lashkari Khán's and was built in the time of Aurangzeb, but it is quite out of place now and never used. There is no traffic to speak of along the Ambála road on account of the railway; but the Jagráon and Dakha encamping-grounds with supply-houses at Kohára and Samrála, on the Samrála road, which is now very rarely used by troops, but was formerly the highway to Simla and the hill stations from the Ludhiána cantonment.

Bungalows and rest-houses.
Gordon Walker, S. R. § 150.
Rest-houses *Table 29 of Part B.*
Polymetrical *Table 30 of Part B.*

"There is a regular dâk bungalow at Ludhiána (with a *khánsámah*), and this is very much used by Europeans, who are passing through from Ferozepore or have business here. There are district (or police) bungalows at Máchhiwárá, at Kohára and Samrála on the Kálka road; at Khanna and Sahnewál on the Ambála road; at Dehlon on the Maler Kotla; and at Dakha and Jagráon on the Ferozepore roads; but these are very poor (except that of Kohára), being in most cases the *burj* or corner of the tahsil building or of a *sarái*. The old Residency House at Bassian, built in 1838, is still kept up with its gardens and grounds which cover an area of 70 to 80 acres. Although a good part of the building has been pulled down, what is left is too much to be kept in good repair. It is a pleasant place to spend a few days at, as the locality is one of the healthiest in the District. There are Public Works Department bungalows along the Ferozepore and Ambála roads at Khanna, Pindori (near Dakha), Jagráon, which have fair accommodation, and are available for district officers. There are canal bungalows at distances of ten miles along the branches of the canals; but these are generally occupied by the officers of the Department or by subordinates. The statement (1) on the next page shows the recognised routes and stages with the accommodation, &c., for travellers to be found at each. The first halt on the road to Lahore is at Phillaur in the Jullundur District."

(1) See, page 145 of Settlement Report (1878-83).

CHAP. II, H.

Famine.

List of Post Offices. *Table* 31. Working of Post Offices. *Table* 32 *of Part B.* Telegraphs.

The post offices of the District are under the Superintendent of Post Offices, Ludhiána Division. Mails are carried by Mail Cart from Ludhiána to Jagráon and by *shigram* from Ludhiána to Samrála, and there is a District *ekka dâk* from Raikot to Wataha. On the remaining lines, Imperial and District, the mails are carried by runners.

There are combined post and telegraph offices at Jagráon, Ludhiána and Khanna, and Railway Telegraph offices along the North-Western and the Ludhiána-Dhuri-Jakhal Railways. There are also lines along the main line and both branches of the canal under the Canal Department.

Section H.—Famine.

History of famines and scarcities. *Gordon Walker, S. R.* § 124.

The earliest famine of which men talk is that of Sambat 1787 (A.D. 1730). The memory of it is preserved in the saying *satassiake máriá hua*, applied to a man who has got food and refuses to feed a starving beggar; but no particulars are forthcoming as to how the people lived, or what was the extent of its ravages. There was drought in 1759 and again in 1770, but apparently no famine; and the effects were only felt for a few months. The memory of these visitations has been effaced by that which followed. The terrible famine of Sbt. 1840 (A. D. 1783), called *chália* appears to have spared no part of northern India, and this District suffered with the rest of the country. It began with the failure of the autumn rains of Sbt. 1839, there being little or no yield in the Kharíf and following Rabi harvests. Prices rose from Bhádon (Sbt. 1839), and by Baisákh (Sbt. 1840) wheat was selling at 20 *sers kachcha* (8 *sers pakka*) a rupee. Rain fell in Hár, but not afterwards; and the Kharíf crops of Sbt. 1840 all withered. In Kátak of that year wheat was at 8 *sers kachcha* ($3\frac{1}{2}$ *sers pakka*) a rupee; and, if we consider the difference in the value of money then and now, we may realize the extent of calamity from this. The Rabi was not sown except at the wells, of which there were not nearly so many as now. In Chet Sbt. 1841 there was rain: and in Hár the usual autumn falls began. The Kharíf and Rabi following were very good. The pressure of famine lasted nearly $2\frac{1}{2}$ years altogether, and the mortality must have been tremendous. Grain could not be bought for money; and people are said to have died with bags of rupees under their heads. All natural affection was lost sight of, and parents robbed their children of their food, and looked on to see them die. Many emigrated beyond the Jumna, where there appears to have been something to live on. People are even said to have been driven to cannibalism. The cattle died everywhere; and, when the rain did come, men had to drag the plough through the fields. The green crop was eaten whenever the heads were formed, and many people lost their lives from sickness brought on by improper food. Famine was as usual followed by

Famine of Sambat 1840.

CHAP. II, H.
Famine.
Famine of Sambat 1840.

disease. When the people were able to resume the cultivation of their land, the country gradually recovered its prosperity; but the horrors of the *chália* will long be remembered. It is worthy of remark that not a single village was totally deserted in this famine. Proprietors abandoned their land here and there, and many must have died; but the mass of them adhered to their villages, probably in most cases because there were wells at which the survivors could eke out some sort of existence. The history of no village contains any allusion to its having been deserted at this time; and the few that date their foundation from a later period than the *chália* were settled by the ruler of the time in the surplus area of some old village contrary to the wishes of the rightful owners.

Famine of Sambat 1869.

"The next famine was in Sbt. 1869 (1812-13 A. D.). The Kharíf of Sbt. 1868 and Rabi following were poor, and fodder scarce. Rain fell at first, but stopped, and the Kharíf of Sbt. 1869 and Rabi succeeding failed, except at the wells. Grain rose to 18 *sers kachcha* (7 *sers pakka*); and straw was not to be had. There was a tremendous loss of cattle, and oxen ceased to have any value, being given away for nothing, or turned loose in the fields. The autumn rains of Sbt. 1870 were good, and prices fell. The loss of human life was not perhaps very great, and was confined to the poorer classes, labourers and artizans, in the towns and villages."

Sambat 1890 and 1894.

"The history of the *nabia* or scarcity of Sbt. 1890 (1833 A. D.) is as follows. Grain was selling at two maunds (*pakka*) a rupee when it began. The autumn rains of Sbt. 1890 failed; and the two harvests produced almost nothing except at the wells, where carrots and other vegetables were grown. The loss of human life and of cattle appears not to have been considerable; and the price of gram was never higher than 17 *sers pakka*; but this was of course very dear for those times, and would mean 8 or 10 *sers* a rupee now. In Sbt. 1894 there was a scarcity, but not of much severity. The people had not, however, recovered from the ninety. Witness the couplet:—'Saved from the 90, succumbed to 94; there were clouds by day and starry nights.'

Sambat 1917.

"Of the next scarcity, that of A. D. 1860-61, we have official information. The account for this District is as follows:—The Rabi of Sbt. 1917 (1860 A. D.) was poor, the winter rains having failed; and the price of wheat rose to 34 *sers pakka* by Baisákh. There was rain in Hár, but not in the following months; and the Kharíf was sown, but withered. There was a great grain on the grain stores of this District, caused by the scarcity in those to the south; and the price of wheat rose till it reached at one time 7 or 8 *sers* a rupee. The Rabi was very poor, but did not fail entirely; and the rains of 1918 were plentiful. There was a great scarcity of fodder and a considerable loss of cattle; but none of human life from actual starvation, in the villages at all events. It was a famine in the Bángar country (Rohtak, Hissár, &c.), and numbers flocked north-

Sambat 1917.

wards from those parts. The people say *Kál Bángar thon upje bura*, *i.e.*, "a famine coming from the Bángar is bad." The stores of grain were sold at an immense profit, which probably more than compensated for the loss of cattle. The scarcity of Sambat 1917 will be found to be the turning point in the fortunes of many agriculturists of the western and Jangal villages. Most of them had grain in store; but the unlucky few that had not were compelled to incur a debt of which they have never got rid. Mortgages in Jagráon Tahsil can be as often as not traced back to the "17" (*satárah*) or the following "25" (*panji*). There was some acute distress among the lower classes in the towns; but the whole famine expenditure appears to have amounted only to about Rs. 6,000; and, although a suspension of 3 per cent. of the revenue was considered necessary, the balance was soon realized. Captain (afterwards Colonel) McNeile wrote in 1861 that the money-lenders were complaining that the Jats had paid off all their debts and taken the grain trade completely out of the hands of the regular merchants.

Famine of Sambat 1925.

"The scarcity of 1869-70 was, as regards this District, of much the same character as that of 1860-61; but the harvests were better, and the injury done was confined to a not very considerable loss of cattle, and to debt incurred by individuals from this cause or from their having to purchase grain for food. Wheat went as high as eight or ten seers a rupee; but the people affected by this were as usual the artizans and labourers in the towns. There was on both occasions a good deal of immigration of starving people from the south. The whole expenditure on relief works amounted to Rs. 7,000, incurred entirely in the towns. On the other hand the mass of the agricultural population, at all events of the western parts where the effects of famine ought first to be felt, profited greatly by the high prices as in 1860; and the advantages to them as a whole far outweighed the evils. Nominal suspensions to the amount of Rs. 2,500 were sanctioned; but the balances recovered next year."

1877-78 A.D.

"In the reports of 1877-78 Ludhiána is shown as "unaffected." The harvests were very fair; but prices were run up to famine rates in consequence of the demand from the North-Western Provinces, Madras and Bombay. This was to the entire benefit of the cultivator, and to such as had stores of grain.

1896-97 A.D., 1899-1900 A.D.

The opening of the Sirhind Canal in 1884 has rendered the District practically secure from famine. In neither of the famines which visited the Punjab in the decade 1891—1900 was even scarcity declared to exist in Ludhiána, and the District steadily exported food grains throughout the worst of the famine. At the same time the poorer classes suffered more or less from high prices, especially in the Jangal tract; and, though there was no great movement to other Districts, there were few families of the poorer classes one or two members of whom did not emigrate in search of employment.

CHAPTER III.—ADMINISTRATIVE.

Section A.—General Administration and Administrative Divisions.

CHAP. III, A.

General Administration and Administrative Divisions.

Administrative Divisions.

The District which lies in the Administrative Division of Jullundur is under a Deputy Commissioner, who is assisted by four Assistant or Extra Assistant Commissioners. The District contains no sub-division, but has three Tahsils—Ludhiána, Jagráon and Samrála—each under a Tahsíldár and Náib-Tahsíldár. *Zaildars* and *lambardárs* are appointed in the ordinary way according to the rules under the Land Revenue Act. Regarding the *zaildári* system the Settlement Officer wrote as follows in 1883:—

Village officers. *Zaildárs.* *Table* 33 *of Part B.*

"It was feared that the introduction of the system might interfere, with the semblance of local authority, still preserved by some of the larger *jágírdárs.* The *jágírs* of Malaudh and Ladhrán were, therefore, excluded from its operation. In the rest of the District the *zails* were arranged within the Tahsíls, so far as was possible, according to tribes; although in many places it was found quite impossible to group together villages so as more than partially to secure this object. The Bet tract is in the hands of a Muhammadan population, belonging to the Rájpút, Gújar, Jat, Aráin and Awán tribes; but the villages of these are, as a rule, so mixed up that, although it may be said that one or other of the tribes predominates in a certain portion of the lowlands, we could not arrange any single *zail* so as to consist entirely of villages of the same tribe. Muhammadan Rájpúts and Jats own most of the Samrála and Upper Ludhiána Bet tracts; while in the lower part of Ludhiána and Jagráon the Gújars are in a great majority. Amongst the Jats of the uplands it was in like manner impossible, except in the case of the Garewáls, whose villages are grouped together to the south-west of Ludhiána, to arrange the *zails* by *gôts.* The peculiar disadvantages under which the system appears to labour in Ludhiána is the weakness of the tribal organization, for I know of no District where want of union amongst the agricultural population is more marked. If villages lie in groups, each belonging to one tribe or *gôt,* it is certain that one or two men will be regarded as the heads of the tribe or *gôt;* but in Ludhiána there is very little tribal feeling anywhere, and almost every single *lambardár* in each *zail* was a candidate for the appointment."

The *zaildári* cess was calculated at one per cent. on the land revenue at Settlement and up to 1887 was paid from the revenue of each village in the *zail* when each *zaildár's* remuneration was assigned in the form of an *inám* out of a single village, in a fixed sum for the term of Settlement irrespective of fluctuations in the land revenue. A list of the *zails* in the District is given below:—

CHAP. III, A.

General Administration and Administrative Divisions.

Zaildárs. *Table* 33 *of Part B.*

LIST OF ZAILS.

No.	Tahsíl.	Name of *zail*.	Number of villages (1903-04).	Total Assessment (1903-04).	*Zaildári* fee (fixed).	Name of the village, from the revenue of which fee is paid.	Prevailing tribes: M.=Muhammadan. H.=Hindu.
1	Samrála.	Bahlolpur ...	24	16,006	158	Bhillon ...	M. Jats and Rájpúts
2		Sainsowál Kalán...	41	19,418	172	Sainsowál Kalán...	Do. do.
3		Powát ...	15	18,732	185	Powát ...	Ditto with a few H. Jats, etc.
4		Kutála ...	15	17,100	168	Kutála ...	H. Jats and Rájpúts
5		Utálán ...	13	15,754	156	Utálán ...	H. Jats.
6		Mal Mázra ...	14	21,537	211	Mal Mázra ...	Do.
7		Bhari ...	11	20,805	200	Manupur ...	Do.
8		Kheri ...	17	17,635	173	Kheri ...	Do.
9		Lohár Mázra ...	15	18,643	182	Bulepur ...	Do.
10		Raháwan ...	12	20,530	201	Raháwan ...	H. Jats and M. Rájpúts.
11		Salandi ...	7	16,188	160	Purbá ...	H. Jats.
12		Rupálon ...	18	17,285	171	Rupálon ...	Do.
13		Mohanpur ...	13	19,752	191	Mohanpur ...	Do.
14		Aikoláhá ...	15	19,172	189	Bír Kishan Singh	Do.
15		Isru ...	11	18,480	180	Isru ...	Do.
16		Dhiro Mázra ...	4	5,861	56	Dhiro Mázra ...	Do.
17		Jabo Mázra ...	5	5,730	56	Jabo Mázra ...	Do.
		Total ...	250	288,628	2,809		
		Excluded from zaildári (Ladhrán *jágír*) ...	25	24,810	2,809		H. Jats.
		Total Tahsíl ...	275	313,438	2,809		
18	Ludhiána.	Baliwál ...	26	18,358	170	Balewál ...	M. Jats, Rájpúts, Gújars, etc.
19		Katani Kalán ...	18	17,637	171	Kotgangu Roi ...	H. Jats.
20		Chaunta ...	24	19,251	191	Kúm Kalán ...	M. Rájpúts, Gújars, etc.
21		Matiwárá ...	25	16,805	172	Matewárá ...	Do.
22		Bholapur ...	17	20,286	197	Bholapur ...	Do. H. Jats.
23		Gill ...	12	17,588	170	Gill ...	H. Jats.
24		Sahnewál ...	15	19,987	187	Sahnewál ...	Do.
25		Umedpur ...	15	17,748	174	Umedpur ...	Do.
26		Lálton ...	12	21,556	213	Lálton ...	Do. (Garewál *gôt*)
27		Baddowál ...	16	21,458	213	Báddowál ...	H. Jats (Garewal).
28		Sunet ...	12	19,076	188	Sunet ...	H. Jats.
29		Ludhiána ...	36	18,269	173	Tarf Gahlewál ...	M. Gujars, Rájpúts and Miscellaneous castes.
30		Kasá 'ábád ...	31	21,509	207	Kuliawál ...	Awáns.
31		Núrpur ...	23	15,002	163	Khera ...	M. Gújars, etc.
32		Dákha ...	12	17,873	176	Dákha ...	H. Jats, etc.
33		Raipur ...	9	19,195	194	Raipur ...	H. Jats (Garewál)
34		Shankar ...	14	21,016	207	Shankar ...	H. Jats.
35		Butáhri ...	6	8,034	80	Hans ...	H. Jats, Kaláls, etc.
36		Ghunjrána ...	13	17,278	172	Ghunjráná ...	H. Jats.
37		Dhulkot ...	11	18,728	189	Gújarwál ...	Do.
38		Pakhowál ...	11	17,267	174	Líl ...	Do.
39		Tájpur ...	14	18,284	180	Tájpur ...	H. Jats and M. Rájpúts.
40		Latálá ...	9	18,778	185	Rachhín ...	H. Jats.
		Total ...	381	420,923	4,146		

CHAP. III, A.

General Administration and Administrative Divisions.

Zaildárs, Table 33 of Part B.

No.	Tahsil.	Name of *zail*.	Number of villages (1903-04).	Total assessment (1903-04).	*Zaildári* fee (fixed).	Name of the village, from the revenue of which fee is paid.	Prevailing tribes. M.=Muhammadan. H.=Hindu.
		Excluded from *zaildári (pargana)* Malaudh ...	71	96,485	...		H. Jats.
		Total Tahsíl ...	452	517,408	4,146		
41	Jagráon.	Bhundri ...	22	17,037	156	Gorsián Qadir Bakhsh ...	M. Gújars, Aráins, Rájpúts.
42		Sidhwán Bet ...	22	21,466	199	Katwál ...	H. Jats, Aráins, Gújars.
43		Ghálib Kalán ...	13	19,873	194	Ghálib Kalán ...	H. Jats, etc.
44		Sawaddi ...	16	20,820	206	Jandi ...	H. Jats.
45		Mandiáni ...	12	16,919	169	Mandiani ...	Do.
46		Hans ...	9	17,468	173	Hans ...	Do.
47		Jagráon ...	14	20,949	204	Mírpur ..	Do. Gújars, Rájpúts, etc.
48		Kaonke ...	10	16,999	167	Kaonke ...	H. Jats.
49		Akhára ...	7	14,876	147	Rúmi ...	Do.
50		Mallah ...	5	13,705	137	Malhah ...	Do.
51		Lakha ...	5	19,393	186	Lakha ...	Do.
52		Bassián ...	10	18,799	187	Rámgarh Sidián...	Do.
53		Raikot ...	10	22,357	178	Taluandi Rai ...	Do. and M. Rájpúts, etc.
54		Akálgarh ..	11	19,308	193	Akálgarh ...	H. Jats and others.
55		Mohi ..	9	21,136	208	Mohi ...	H. Jats.
		Total	175	281,105	2,704		
Total District.		Total *zaildári* ...	806	990,656	9,659		
		Excluded from *zaildári* ...	96	121,295	9,659		
		Total ...	902	11,11,951	9,659		

The lambardárs or village headmen.

Before the time of the Regular Settlement the *lambardárs* were a strong body, well paid and selected as really leading members of the agricultural class; but in the inquiry which was then made their number was more than doubled. Even yet the pay is generally very fair in the Dháia; but in many Bet villages *lambardárs* receive as little as Rs. 2 to 3 a year, and there is often very little to distinguish them from the rest of the proprietary body. Not one in a hundred keeps a horse or pony; and their sole idea of duty to Government is that they must realise the revenue and their own allowance. In fact until about 1880 the first of these duties was relegated to the *patwári*, who regularly accompanied the *lambardárs* when taking the money to the Tahsíl, in case it might be misappropriated. It is, perhaps, a sign of progress that the authority of the *lambardárs*, such as it was, is daily diminishing; but a further weakening is likely to lead to much administrative inconvenience. In many villages the sharers, though perfectly able to pay their revenue, neglect to do so, well knowing

CHAP. III, A.

General Adminis-tration and Adminis-trative Divisions.

The *lambar-dárs* or village headmen.

that the *lambardárs* will get into trouble, and the latter has at best a very clumsy remedy against defaulters. A proposal was made in 1896 by the Deputy Commissioner that the number of *lambardárs* in the Bet should be reduced. The principle was accepted by Government and is to be acted on as the posts fall vacant. The subjoined list shows the number of *zaildárs, sufed poshes, lambardárs* and *chaukidárs* in the District in 1903:—

TAHSIL.	ZAILDARS' ANNUAL PAY.			SUFED POSHES' ANNUAL PAY.			LAMBARDARS' ANNUAL PAY.			VILLAGE CHAUKIDARS' MONTHLY PAY.		
	No.	Max.	Min.	No.	Max	Min.	No.	Max.	Min.	No.	Max	Min.
Ludhiána ...	23	213	80	54	30	20	1,341	5 p. c. on land revenue of the village.	...	464	3	2
Jagráon ...	15	208	137	30	30	20	557	..		217	3	2
Samrála ...	17	210	50	33	30	20	750	...		236	3	2
Total Rs. ...	55	...	9,659	117	...	2,740	2,648	54,709		917	...	...
	(Average per head).		176	...	...	23	...	...		...	...	...

Of the three Tahsíls Ludhiána would appear to be inconveniently large. But the whole of the Malaudh *pargana* is held in *jágír* by the family of the Malaudh Sardárs, the land revenue of their estates being Rs. 85,077. The revenue and cesses are ordinarily paid by the *lambardárs* to the *jágírdárs* themselves. This arrangement for direct collection is a convenience to the people and lessens the land revenue collection work of the Tahsíl materially.

Court of Wards.

There are at present (1904) three estates under the Court of Wards, namely, those of—

(1) Gur Bachan Singh of Kotla Ajner, which consists of 30 acres only with an income of Rs. 1,154. The liabilities of the estate are about Rs. 14,000.

(2) The late Sardár Mahtáb Singh of Ladhrán, who had no landed property. The *jágír* brings in Rs. 8,980 annually and the liabilities are nearly Rs. 26,000.

(3) Dalíp Singh of Ladhrán, who has an estate of 77 acres. His income is Rs. 3,704 and his liabilities about Rs. 14,000.

Offices of other Depart-ments.

Ludhiána is the head-quarters of the 1st Division, Sirhind Canal, with an Executive Engineer, who is under the control of the Superintending Engineer at Ambála. The District Superintendent of Police is under the Deputy Inspector-General, Eastern Circle, at Lahore. The Grand Trunk Road and public buildings,

CHAP. III, B. — Justice.

Offices of other Departments.

together with certain other roads in the District, are under the Executive Engineer, Jullundur Division. The forest plantation (see above page 153), is under the Deputy Conservators, Bashahr Division. The railways in the District are controlled from Sahâranpur. For Post Offices and Telegraphs see page 167.

Section B.—Justice.

Civil Justice. *Table* 35 *of Part B.*
Criminal Justice. *Table* 34 *of Part B.*

The District Judge of Ludhiána is under the control of the Divisional Judge of the Ambála Division. There is a Sessions House at Ludhiána with a Court room and sufficient accommodation for the Sessions Judge.

Panchayats.

A system of village *panchayats* was introduced into certain villages in this District in 1896. Rules of procedure, based on the Ambála rules were framed, in the first year no less than 1,325 cases, involving Rs. 56,360, were settled by these bodies. After that, however, the number of cases decided annually by the *panchayats* gradually dwindled, and since 1900 no cases have been brought before them.

The character and disposition of the people is thus described by Mr. Gordon Walker:—

Character and disposition of the people.

"I have already (see p. 74 *supra*) considered the character and disposition of the various tribes which composes the rural population of the District; and I hope I have made it plain that the mass of the people are quiet, contented and law-abiding. The exceptions are the Gújars, perhaps the Rájpúts, the criminal tribes of Hárnís, &c., and to these I may add the rabble of the towns. I do not think that the people of the District have a predilection for any special form of crime, most of the serious offences coming under the heads of theft and burglary. The Gújars in the Bet do a good deal of cattle-lifting. The Gújars are from of old turbulent, and a large portion of them either actually engage in crime or are on the side of the criminals; but there are at present many respectable men of the tribe. The Rájpúts do not go beyond grumbling. The Hárnís, Bauriás and other professional criminal classes are not showing many signs of regeneration under our rule, and to their account a great deal of the crime of the District must be set down. Even with them the amount of crime is not more than normal, and the District will compare favourably with most in the province. There is a daily increasing love for litigation, which is most strongly developed amongst the Jats. The most petty cases are fought out to the bitter end, and both parties freely use suborned witnesses to support their claims. The ordinary honest peasant appears quite to change his character when he comes into our Courts; but this is perhaps not to be mentioned as a feature peculiar to this District."

A luminous note on the Tribal Law and Custom of the District will be found in Mr. Gordon Walker's Settlement Report, p. 287.

Honorary Magistrates.

There are four Honorary Magistrates in Ludhiana city and five in the rest of the District. The City Magistrates sit in

benches of two. Bench A sitting for the first half of the month and Bench B for the second.[1]

For the jurisdiction powers, &c., of the Honorary Magistrates see Table 33 of Part B.

Lawyers and petition-writers.

There are 4 Barristers practising in Ludhiána besides 19 pleaders and 9 *mukhtárs.* There are 93 petition-writers, of whom 22 are first grade.

Registration. *Table 37 of Part B.*

The Deputy Commissioner is *ex-officio* Registrar. Sub-Registrars are stationed at Jagráon and Samrála for those two Tahsíls. The Sub-Registrar at Ludhiána is concerned with the whole of the Ludhiána Tahsíl with the exception of 54 villages, chiefly in the Jangal tract, where Sirdár Badan Singh, C.S.I., performs the duties of Sub-Registrar. Besides the Sub-Registrars, each Tahsíldár is *ex-officio* joint Sub-Registrar of his Tahsíl.

Section C.—Land Revenue.

Village communities and tenures.

It is in many cases impossible to class a village satisfactorily under any one of the ordinary recognised forms of tenure. The primary division of right between the main sub-divisions of the village often follows one form, while the interior distribution among several proprietors follows another form. Frequently the forms vary within different sub-divisions of the same village.

Kharpanch. *Gordon Walker, S. R.,* § 86.

The *kharpanch* deserves mention as a growth of our system. He is a sharer who has acquired a reputation for cleverness and for knowing law, and has probably sharpened his wits by hanging about our courts. He is invariably in opposition to the *lambardárs* and to Government; but his advice is taken on all matters by individuals or by the whole community. Any one wishing to institute a case consults him, and he is always ready to suggest to a sharer some cause of quarrel with his neighbour. The *kharpanch* is in fact the village mischief-maker, and everybody's business is his.

Village tenures. *Gordon Walker, S. R.,* § 85.

The following figures show the classification adopted by Mr. Gordon Walker at the recent Settlement and that given in the Land Revenue Report of 1900-1901. In the paragraphs which follow will be found his remarks upon the Settlement figures:

Tenure.	Last Settlement.			1900-1901.		
	Villages.	Share-holders.	Acres.	Villages.	Share-holders.	Acres.
Zamíndáris held by individuals ...	5	5	1,627	49	1,070	15,568
Zamíndári village communities ...	22	380	7,857			
Pattidári ditto ...	9	545	4,513	862	123,127	875,007
Bháyachára ditto ...	47	7,428	55,640			
Mixed or imperfect *pattidári* or *bháyachára.*	818	88,347	812,166			
[Go]vernment waste ... Forests	...	...	276	...	...	...
[Go]vernment waste ... Other	...	...	78	...	...	...
Total	901	96,705	882,157	911	124,197	890,575

(1) Punjab Government Notification, No. 967, dated 28th October 1891.

CHAP. III, C.

Land Revenue.

Village tenures.

"These figures show the forms of village tenures in the District according to the accepted definition of the terms *zamíndári*, *bháyachára* and *pattidári*. But little information as to the real constitution of the villages is to be derived from this classification, if indeed it is not distinctly misleading. In the form of statement(1) I read that a *bháyachára* village is one 'in which possession is the measure of right in all lands,' but I believe that for *right* we ought to read liability; and that the distinction comes to be a mere question of the manner in which the assessment is distributed for the time being on shares. This makes a very material difference, for in numbers of villages, although the shares have become obsolete to this extent that they are not used for distributing the assessment, the village common land and the receipts from it are still divided according to them. Again, almost every village has got some area, however small, of common land, in the receipts of which the community participate, and this fact makes the tenure 'imperfect.'

"The purest form of the village community is that in which the proprietors are or keep up the fiction of being descended from a common ancestor, and of this type there are only a few villages in the District, belonging mostly to Rájpúts. I have explained in § 50 the manner in which most of the Jat villages were founded by several families, which generally belonged to different *góts* or subdivisions. The land was in the first instance divided according to shares (called *hal* or plough) a number of these being assigned to each family according to strength. The *hal* differed according to locality, but was as much as it was estimated that a pair of oxen could plough. Under native rule revenue was realized in kind or by cash on the area of certain crops; but the people retained these customary shares and used them in the distribution of common receipts and in payment of fines, cesses, &c. The subject will be more fully discussed in the second part of this report; but I may state the result generally to be that under our rule, owing to improvements in the land, transfers, &c., the shares have been generally abandoned as a measure of liability for Government revenue, but retained as a measure of right in the village common property and of liability for casual demands (*e.g.*, *malba*). The native States around (Patiála, Jínd, Nábha and Máler Kotla) have followed our example and substituted a cash demand for revenue taken in kind; but it is everywhere distributed on the shares (*halsári*). It is only in the Bet and in a very few Dháia villages of this District that the people have of their own free will adhered to the shares under our rule. There is no village that I know of in which the land was originally occupied piecemeal without a formal division according to shares. The original distribution is generally most elaborate, the whole area having been divided into blocks according to quality and each sharer getting his portion in each block. Sometimes the land of each subdivision is separate, and there is then this same arrangement amongst the sharers inside of it. I should say then that the villages were all *pattidári* (or *zamíndári*) in their origin; but that in most the shares had fallen out of use for purposes of defining the liabilities of the sharers."

Subdivisions.

The subdivisions of villages are *tarafs* in some of the larger villages, *pattis* in most; and inside of these *thulás*. The proprietors of a *thulá* are generally of the same *gót* and often the descendants of a common ancestor. Each *thulá* will be found divided into ploughs (*hal*), which may be either *pakka* or *kachcha*, the former representing the original distribution of land, and the latter subsequent partition; but the size of the plough now merely depends on the number of sharers in the subdivision, and it may or may not be the same for the whole village. Thus the land of a village may be divided equally between two *pattis*, and subdivided inside one into 20 and inside the other into 25 ploughs.

(1) See also paras. 103 and 104 of the 'Directions to Settlement Officers,' Barkley's Edition.

CHAP. III, C.

Land Revenue.

In most villages there are lands held by persons who are not members of the village community, who possess no share in the common lands, and who are called *málikán qabza*. Many of them hold small religious endowments only.

Size of proprietary and tenancy holdings.

Gordon Walker, S. R., § 42.

Table 38 *of Part B.*

Mr. Gordon Walker thus discussed the average size of holdings:

"With the Assessment Reports I submitted statements showing the average size of the proprietary and cultivating holdings, but these, as I pointed out, are quite unreliable. The holdings were of the *khatauni* (register of tenancy holdings), and calculations based on them are necessarily valueless. Thus A and B hold land separately, having divided it and also have some in common. A has mortgaged a couple of fields to two other proprietors and B may have done the same. Each of these facts is shown as a separate holding. Or, again, a proprietor cultivates his own land, and has also rented land from another; and he would appear both as a proprietor and as a tenant. I have now done my best to find out what the actual size of the holdings in the different tahsíls is. I have taken the total of all land cultivated by proprietors, whether it is their own or that of proprietors, and divided this by the total number of proprietors, whose names appear in the *khewat*. Only those are shown as tenants who do not own land. The result is as follows:—

TAHSIL.	KHEWATDARS.		OCCUPANCY TENANTS		TENANTS-AT-WILL.	
	No.	Area cultivated.	No.	Area cultivated.	No.	Area cultivated.
Samrála	22,617	136,300	1,059	4,160	2,388	6,816
Ludhiána	51,308	331,496	3,903	11,582	6,209	21,447
Jagráon	26,608	211,509	1,855	11,352	1,491	6,759
Total	100,533	679,305	6,817	27,094	10,088	35,022

"Thus the average area to every cultivating proprietor, who is liable for Government revenue is, for the whole District, 6 acres. In Jagráon Tahsíl it is 8 acres, and in the Jangal Circle of Ludhiána, 9 or 10. Every *khewatdár* is not necessarily the head of a family, for he may be unmarried; but he is in every case an owner of land in his own right."

In 1901-02 the figures were—total area cultivated 767,285; total number of owners 476,967; tenants free of rent 4,852; occupancy tenants 31,807; tenants-at-will 251,024.

Petty village grants.

Petty village grants made to village menials and others assume various forms. The most common is a revenue-free grant, but this is by no means the only form. Sometimes the land is leased to the grantee at a favourable rent, or on condition of payment of revenue only; sometimes the owner cultivates and pays the revenue making over the produce to the grantee; while occasionally the grant consists of the rights of property in the land, which, subject to the usual incidents, such as responsibility for revenue and the like, vest in the person performing certain specified services at such time and for so long as he performs them. These grants are most commonly made to village menials and watchmen on condition of, or in payment for, services rendered to attendants at temples, mosques, shrines, or village rest-houses so long as they perform

CHAP. III. C.

Land Revenue.

Common village property: income and expenditure: village cesses.
Gordon Walker, S. R., § 87.

the duties of the post, and for maintenance of monasteries, holy men, teachers at religious schools, and the like.

In every village there is a common fund (*malba*) managed by the *lambardárs*. There were formerly various sources from which money came into this—

(1). Receipts from sale of produce of the common land, and rents paid for cultivation of it.

(2). *Atráfi*, or a cess levied on the houses of the artizans and sometimes of the shopkeepers, at the rate generally of Re. 1 per annum on each shop or house.

(3). *Dharat* or *tuláí*. Whenever grain was sold in the village it was weighed by the *tola* who charged at a certain rate on each transaction, and credited a portion of these receipts to the village fund.

(4). There has always been a good deal of expenditure from the common fund, principally on feeding *faqírs* and other holy men; and, as this generally exceeds the receipts, a collection has to be made from the sharers. The second and third sources of income have survived in only a few villages; and with the spread of cultivation the first does not remain in many. In the eastern villages the funds are invariably raised in the following way. The *lambardárs* have the power of incurring expenditure as necessary, getting the money from some appointed shop, and the account is made up once or twice a year, the sharers being entitled to have it explained to them. The amount spent is then collected by a *báchh* or contribution from the sharers. In some villages the proprietors have allowed the *lambardárs* to realize a small percentage on the land revenue for this purpose, and the latter are then responsible for the whole expenditure. In a few villages to the west (Jagráon and Pakhowál) *atráfi* is still realized; but the proprietors generally prefer to divide the receipts, keeping the public account separate in the manner described above. When considerable sums are now and again realized by the sale of wood on the common land, this same course is followed. In the Jangal villages, the whole village expenses are paid by *dharat*, or fees on sales of grain, the transactions in those parts being much more considerable than in the eastern villages. Disputes about the village fund are constant, and the endeavour is everywhere to deprive the *lambardárs* of the power to spend money for any purpose. The sharers are usually put up by some knowing one to question this right, and the management of the common fund becomes a standing cause of quarrel.

EARLY SETTLEMENTS.

Akbar's revenue system (1556—1605).
Gordon Walker, S. R., § 183.

In the A'in-i-Akbari[1] we have under the head of "Tribute and Taxes" a complete account of the great emperor's revenue system, and some reference to those that had preceded it. The ministers, Todar Mal and Muzaffar Khán, between the 16th and 24th years of the glorious reign elaborated a scheme for fixing the land revenue of the empire, and for giving security to the husbandman, which is nearly as complete as our own. One standard chain and *bigah* were first introduced; then land was classified into *poolej* or cultivated every harvest, and *perowty*, *chechar*, *banjer* (Gladwin's spelling), fallow and arable waste. The average produce of each crop was then struck from the estimated value of the yield of three classes of *poolej* or regularly cultivated land; and of this *one-third* was taken as the Government due, all extra cesses being at the same time stopped, and salaries to be paid in cash from the imperial treasury being fixed for the officials, who had before that lived on the people. From

[1] Gladwin's Translation, Vol. I, Part III.

CHAP. III. C.

Land Revenue.

Akbar's revenue system (1556–1605).

the 25th year of the reign a ten-years' settlement was introduced, the value of the Government share in each crop being taken at the average of the preceding ten years. Elaborate instructions were at the same time formulated for the guidance of the collectors (*Amilguzars*) and subordinate agency. The assessment was apparently a fluctuating one, the *rates on crops* being fixed for the period; but the people were allowed to pay in kind if they chose. The rates were uniform *súbas* or provinces; and no special information is to be obtained about this District in particular, as it is made up of several of the 33 *mahals* of the Sirhind *sarkár* or division, of which the whole land revenue is set down at Rs. 40,00,000 (16,07,90,540 *dáms*). Tables are given in the A'in of the rates collected on every crop during a period of 19 years from a *bigah* of *poolej* or cultivated land in each *súba*. Wheat paid generally from Rs. 1 to 2 a *bigah*; gram, &c., from 8 annas to Re. 1; *ponda* sugarcane from Rs. 4-8 to 5; other cane from Rs. 2 to 3; cotton from Rs. 1-8 to 3; pulses and millets (*moth, múng, jowár*, &c.), from 4 annas to Re. 1. It was not to be expected that any more particular information as to the assessments paid by villages or tracts 300 years ago would be forthcoming; and, as the country was but partially under cultivation, and the present villages did not then exist at all or their limits have much changed since then, it would scarcely be of much use even if available. The rates fixed are, however, interesting.

Revenue management under the later empire. Gordon Walker, S. R., § 184.

It is impossible to say to what extent the system of Akbar was maintained by his successors; but the administration of the revenue must have suffered in the general disorganization of the government under the later emperors; and in all parts it came to be a struggle between the collectors and the payers of revenue, the former trying to take as much, and the latter to give as little as they could. The custom of leasing a large tract of outlying territory to some person of importance, who paid a fixed sum annually, and made his own arrangement for collection (*mustájir* or *zamíndár*) must have been recognized even in Akbar's time, for the western *mahals* of the District were always held by the Rais on these terms. The Phúlkián and Maler Kotla chiefs, too, were originally lessees, and held their territories subject to the payment of what was really an annual tribute. The *mustájir* was liable to pay the sum so fixed, but was otherwise independent; and it was only when he withheld payment that the imperial authorities interfered.

The *mustájir*, if his circle of villages was small, took a share of the produce from the cultivator, or sometimes cash rents on particular crops; but generally, as he held a large tract, he sublet it in smaller circles to others who dealt direct with the cultivators. The eastern parts of the District were at first directly managed by the governor of Sirhind, because they were within easy reach, and an assessment was fixed year by year for each village; but, as the imperial authority weakened, and collections became more difficult, the system of leasing *tappas* or circles of villages spread. The principal *mustájir* or assignee in this District was the Rai of Raikot. The family began with a few villages, but gradually extended their boundaries, undertaking the revenue management (called *katkana*) of outlying circles of villages as the governor of Sirhind lost control of them; till finally they held more than half of this, and a good part of the Ferozepore District. The Malaudh Sardárs, like others of the Phúlkián stock, had also a lease, and paid tribute to the emperor, taking a share of the produce from the husbandmen. There were other *mustájirs* of less note, such as the Garewál Chaudhrís of Raipur and Gujarwál, who had a small circle of villages, and paid revenue direct into the imperial treasury. The ability to realize the revenue has always been the test of power in this country; and we find that, as the imperial authority grew weaker, the *mustájirs* were less regular in their payments; while the villages directly assessed would only pay when forced to. As an illustration the following

CHAP. III, C.

Land Revenue.

Revenue management under the later empire.

incidents that took place about 1740 A.D. may be recounted. The Rai (Kalha) was not paying up his revenue regularly, and informed the *súba* or governor of Sirhind that he could not realize from the villages. This was reported at Delhi, and Ali Muhammad Rohilla was sent to bring the people to order. He marched out of Ludhiána towards Jagráon, putting to death *lambardárs* here and there by way of example; but he soon found that it was the Rai himself who had created the difficulty and incited the people to withhold payments. Ali Muhammad then turned on the Rai, and, with the assistance of the Phúlkiáns, chased him out of the country.

Revenue management under the Sikhs.

Gordon Walker, S. R., § 185.

An account of the manner in which the country was partitioned on the disruption of the empire and the fall of Sirhind (A.D. 1763) has already been given. The western portions of the District were already in the possession of the Rais and of the Malaudh Sardárs, who between them held the greater part of the Ludhiána and Jagráon Tahsils; while Samrála and some of the western villages of Ludhiána, which had hitherto been under the direct revenue management of the governor of Sirhind, were seized on in groups by a number of petty Sikh chiefs from across the Sutlej. The only difference that the change made to the Rais and to the Malaudh Sardárs was that they ceased to pay tribute. The petty chiefs from the Mánjha brought with them their system, if such it may be called, of revenue; and when in 1806-09 A.D., Máharája Ranjít Singh extended his territories to this side of the river, annexing all the country held by the Rais, and absorbing several of the petty chiefs, this may be said to have been introduced all over the District. Ranjít Singh divided his conquests between himself and the Kapúrthala, Ládwa, Nábha and Jínd chiefs in the manner described in Section B, Ch. I, p. 21. The greater part was either retained by himself or given to the first of these. The expression *system* of revenue has been used above, but it may be said of the Sikhs as rulers, whether in the Punjab proper or in the Málwa, that their system was to exact as much from the cultivator as was possible without making him throw up his land. No one will claim for Ranjít Singh the reputation of a mild and benevolent ruler. On the contrary the careless manner in which he leased out tracts of country along with the revenue payers inhabiting them to the man who was willing to give most, or to some worthless court favourite, showed that he had a complete disregard for the welfare of his subjects. It was only when by some happy chance a really enlightened ruler of the stamp of Sáwan Mal was entrusted with the government of a portion of his conquests that any consideration was shown for the people. The chiefs, great and small, pursued the same object as the Máharája, *i.e.*, to get what they could out of the peasantry; and the only restraining influence was the fear of losing the revenue-payers. Land was then plentiful and cultivators scarce, so that there was the danger of a chief driving away his villagers into the territories of a neighbour who was not quite so bad. In effect the chiefs were landlords who exacted from their tenants the utmost that they could without driving them away. There was a strong feeling on the part of the peasantry that they had a right to cultivate the land, and it was only the most extreme tyranny that would separate them from it; but on the other hand the demands of the chief on the produce were limited solely by his own discretion.

Gordon Walker, S. R., § 186.

Mahárája Ranjit Singh leased the territory reserved for himself in circles of villages, the lessees being changed from time to time. Thus the family of the *vakils* held the *pargana* of Sáhnewál, paying Rs. 1,00,000 per annum for it; and Jamadár Khushál Singh held about 150 villages in different places. These lessees made their own arrangements with the villages year by year, generally taking care to leave a margin of about one-fourth as profit on what they paid into the Lahore treasury. For some villages a cash

CHAP. III, C.

Land Revenue.

Revenue management under the Sikhs.

demand was fixed, in others a share of the produce was taken or the cash value of the Government share was determined by appraisement. The Kapúrthala (Ahlúwália) chief had a large tract of country on this side of the river, nearly the whole of the Jagráon Tahsil: and the method of fixing the assessment in his possession may be taken as a sample and appears to have been as follows. The Tahsildár went from village to village every year, and first made an offer to the *lambardárs* of the assessment at a certain sum for that year (this method being known as *mushakhasal*. This was often accepted; but if not, a valuation of the Government share of the produce for the year was made by a committee selected from the respectable *lambardárs* of the neighbourhood. For the Rabi harvest an appraisement *(kan)* of the value of the yield from each field was made when the crop was ripe; and for the Kharíf fixed cash rates were generally applied. The resulting assessment for the year was seldom exacted in full, notwithstanding the free use of the various recognized methods of torture; and large balances were generally allowed to accrue. The lesser Sikh chiefs took a share of the produce in the Rabi, and cash revenue according to certain rates for the Kharíf crops. They were really "Zamíndárs" in the Bengal sense of the word and will still assert that the land of the two or three villages that they held belonged to them. The rates paid by the cultivators on the *zabti* crops were as shown in the margin. These rates were fixed for a *kachcha bigah* or *ghumao*, which varied a good deal throughout the District, each chief having his own standard. The *kachcha bigah* has been taken at one-third of the Government standard, as this was about the average.

Crop.	Rate per acre.
	Rs. a. Rs. a.
Cane	14 0 to 20 0
Maize, cotton	7 0 to 10 0
Charri, moth, &c.	1 4 to 3 4
Carrots and other vegetables, poppy, &c.	5 0 (fixed).

The rate at which the chief realized his share of the produce was generally one-third of the grain and one-fourth of the straw. The share of the grain was often fixed as high as half. The Rais are said to have only taken one-fourth grain, and their rule is still spoken of with regret. One would have thought that with rates fixed so high the peasant would have little left for his maintenance; but besides the regular revenue there were the usual dues in cash or in kind, paid to the chief or to the harpies who represented him in his dealings with the people. It was impossible that the cultivator should pay out of his produce all that he was supposed to; and his main resource was pilfering from the field or grain heap before division. The saying *bataie lutaie* applied with equal effect to both parties. There were about a dozen dues levied in cash under some absurd pretence or other; and, if we add to this that the chief quartered his men and horses on the villagers, and that the latter had to contribute their labour gratis whenever called upon to do so, we may imagine that the lot of the husbandman was not a happy one, and that he could scarcely call his life his own. It will require a training for several generations to efface the results of a system like this, and to convince the people that such a thing as honesty is possible in the relation between Government and the revenue-payers.

British Settlement of villages that lapsed in 1835.

Gordon Walker, S. R., § 187.

In 1835 we acquired in the manner described in Chapter I, B, p. 22, a small portion of territory round Ludhiána and Bassian, in all 74 villages. These were managed in much the same way as the surrounding native territory for four years: then a summary cash assessment was fixed for three years; and finally in 1842 a Settlement was made for twenty years, apparently by the assistant political officers, Captain Mills, Messrs. Vansittart and Edgeworth.

CHAP. III, C.

Land Revenue.

British Settlement of villages that lapsed in 1835.

There is no English report of this Settlement, which was probably more or less of a regular one on the model of those of the North-West Provinces; and from § 71 of Mr. Davidson's report (written in 1853) it appears that none was submitted. A complete vernacular record with maps was made out; but this was revised when the rest of the District came under Settlement in 1850, and the assessments of 1842 were at the same time reduced where necessary, enhancements being deferred till the expiry of the full term of the original Settlement. Seventy-one villages, which had paid Rs. 75,680 in 1842, had their assessment reduced to Rs. 74,893. Three villages were not assessed in 1842, because held revenue-free. It will be seen from this that the assessment of 1842 differs but slightly from that fixed after revision.

Summary assessments, 1847-1849. *Gordon Walker, S. R.,* § 188.

The rest of the District came into our hands after the Sutlej campaign of 1845-46, and a summary assessment was fixed by the first Deputy Commissioner, Captain Larkins, who held charge from 1846 to 1849, Sir G. Campbell, who succeeded him, completing such work as remained to be done. The only guide for the assessing officer was the amount collected from each village by our predecessors; and this was ascertained, so far as possible, for a period of five years from the old papers, statements of leading men, &c. A very liberal deduction was made from the results arrived at in favour of the people, the amount of this varying from three to six annas in the rupee. The *jágír* villages were excluded from these operations, and the *jágírdárs* were allowed to continue their collections as before, till after the annexation of the Punjab in 1849, when it was decided that a cash demand should be offered to all villages alike. The assessments of the Summary Settlement were accepted readily; and, considering the data on which they were founded, worked wonderfully. A few villages became disorganized, probably owing to the change of system, and reductions had to be made here and there; but the people welcomed a fixed demand, and this need not excite our surprise when we think of what they had borne under our predecessors. It is usual to contrast the elasticity of native systems of revenue with the rigidity of ours; but it was the complete want of fixity that made the Sikh system a curse to the country. The best way of forming an idea of the fairness of the summary assessment as a whole is to observe the extent to which it was necessary a few years after to revise it in the Regular Settlement. The marginal figures are taken from Mr. Barnes' review of the Regular Settlement, Appendix A, which shows the final result after he had made some alterations in Mr. Davidson's new assessments. As noticed above, the *jágír* villages were excluded from the summary assessment, and this statement includes the *jagírdars'* estimate of their previous collections.

TAHSIL.	ASSESSMENT.		Decrease per cent.
	Summary or by *jagirdars'* estimate.	Regular.	
Pakhowál ...	2,88,141	2,55,959	11
Jagráon ...	1,74,334	1,68,383	3
Ludhiána ...	2,46,786	2,42,150	2
Samrála ...	2,36,338	2,59,108	20
Total ...	10,45,599	9,25,600	11

The Regular Settlement of 1850. *Gordon Walker, S. R.,* § 189.

The Regular Settlement operations commenced in 1850; and the assessments were announced between that and 1853. They were framed under the regulations of the time and the instructions of the North-Western Provinces Board of Revenue, embodied in the "Directions to Settlement Officers." The edition of this work then in force lays down the rule "that the Government should not demand more than two-thirds of what may be expected to be the net produce to the proprietor during the term of Settlement, leaving to the proprietor one-third as his profits and to cover the cost of collection." In §§ 40 and 41 of his report, Mr. Davidson has given an account

CHAP. III, C.

Land Revenue.

The Regular Settlement of 1850.

of how his calculations were worked out. There was a very elaborate classification of soils, each Tahsil was considered by *parganas* (of which there were 19), and the villages of each *pargana* were divided into three classes according to quality. In each class of villages the rent for every crop and soil was calculated; in the case of the Kharíf cash rents (*zabti*), which were actually in use for the principal crops and had been taken by our predecessors, giving the necessary data. For crops on which the rent was ordinarily taken in kind a rate of yield as ascertained from experiment and inquiry was assumed, the proprietor's share calculated at the prevailing rate of rent in kind, and the value of this worked out at the average of the prices current for ten years. The rental of each village was the total of the rents of each crop and soil. For the Kharif harvest the rental calculated was very little out, if at all. The rates assumed do not vary much from *pargana* to *pargana*, and there were the old Sikh *zabti* rates to go on besides existing cash rates of rent; the estimates of yield are much less reliable. As a rule the irrigated rates are much too low; and, although the cultivation may have improved, it cannot have done so to the extent that a comparison of the papers of the revised and those of the Regular Settlement would indicate. As to the proportion of the gross produce taken to represent the proprietor's share, part of § 9 of the Chief Commissioner's review of the Report ("the equitableness of the rate, &c.") appears to have been written under a misapprehension, and indeed is scarcely intelligible. The rate adopted as proprietor's share was one-third of the gross produce in the uplands and two-fifths in the Bet; and of this rental two-thirds was taken as the share of Government, that is, as the revenue rate *jama*. Mention of the prices current used in the estimates of Regular Settlement will be found elsewhere, but it may be stated here that the prices fixed, though warranted by the information then at the disposal of the Settlement Officer, were too high for the following ten years (1850-60), which was a period of very low prices.

Gordon Walker, S. R., § 190.

The inquiries made at the revision of Settlement showed that the weak point of these calculations of the rental was the produce estimate, the rates of yield not being carefully determined; but even with this the rentals were very near the truth in most cases. From them a deduction was next made in favour of the proprietor. Under the instructions quoted above this would be one-third; but in § 43 Mr. Davidson says that he adhered to no abstract rule, but adjusted his demand to that "prevailing in the *pargana*," which would be the summary *jama*. The balance, after making this reduction from the rental, was the revenue rate assessment. Having got his revenue rate assessment for each village the Settlement Officer used it as a guide in assessing, but did not adhere to it at all closely, the total of his actual assessments being considerably below it and only 58 per cent. of his estimated rental.

General character of the assessments.
Gordon Walker, S. R., § 191.

In §§ 9 to 31 of his review Mr. Barnes gives an account of Mr. Davidson's assessments for each Tahsil (there were then four). Those of Pakhowál Tahsíl Mr. Barnes considered moderate, and few complaints were made to him. Pakhowál comprised the lower part of the present Ludhiána Tahsil, with the Akálgarh and Bassian *pargana* of Jagráon. The Malaudh *jágír* had not been before assessed. The details given in the review for this *pargana* shew that in *khálsa* villages the summary assessment of Rs. 1,67,647 was raised to Rs. 1,79,425; while in the *jágír* villages a nominal summary assessment, which had been estimated at Rs. 1,15,938, was reduced to Rs. 74,950.

The treatment of the Jagráon Tahsil was considered to be not successful, and numerous complaints were made. The assessments of the Hatúr *pargana* were reduced by 14 per cent.; and relief was also given in Jagráon *pargana*,

CHAP. III. C.

Land Revenue.

General character of the assessments.

The figures for the whole tahsil as given in the review are shown in the margin. Even after this Mr. Barnes expressed himself very doubtful as to whether the Settlement would stand. At the present time the Hatúr and Jagráon *parganas* are undoubtedly in a more prosperous condition than any other part of the District, except perhaps the Jangal villages; and it is hard to realise the "appearance of squalor and poverty" to which Mr. Barnes refers. The explanation seems to be that these *parganas*, which lie on the Ferozepore border, have always been dependent on a comparatively light rainfall, the proportion of irrigation being at present about 5 per cent. There had been two or three bad years when Mr. Barnes saw the tract in 1855, and the prices of the inferior grains (mixed gram and wheat, or gram and barley mostly) were very low. Be this as it may, the forebodings of the review have not been realized.

Summary assessment	Rs. 1,74,195
Mr. Davidson's assessments	,, 1,79,282
As reduced by Mr. Barnes	,, 1,68,383

The Settlement of the Ludhiána Tahsil was considered to be better than that of Jagráon, and there was little or no complaint. The new demand was a reduction from Rs. 2,46,787 to Rs. 2,42,704, or of one per cent.

Samrála Tahsil Mr. Barnes considered to have been before "grievously over-assessed." The nominal reduction given by Mr. Davidson from the Summary Settlement *jama* was from Rs. 3,43,509 to Rs. 2,62,582, or 23 per cent. If we exclude the *jágírdárs'* estimates the reduction was about 20 per cent. Few complaints were made about the Regular Settlement assessment.

It is evident from what Mr. Barnes writes that two or three years after the new assessments had been announced they were subjected to a searching scrutiny; and such defects as appeared were at once remedied. The Commissioner visited every part of the District and freely exercised his power of revision; and no man of his day had greater knowledge of the work of assessing than Mr. Barnes. The total of the reduction given outside of the Jagráon Tahsil was inconsiderable.

The term of the Regular Settlement.
Gordon Walker, S. R., § 192.

The period for which the Regular Settlement was sanctioned formed the subject of some correspondence in 1879; and the circumstances connected with this are mentioned so as to prevent future misunderstandings. The term of the Regular Settlement of 1842 was 20 years. Mr. Davidson's assessments were introduced between 1850-53 and the tenders were taken for 30 years, either from the date on which they were written, or when in the case of the villages settled in 1842 enhancement was proposed, from 1862, *i.e.*, after the expiry of the original period of 20 years. In § 23 of the letter (No. 686, dated 11th August 1856, printed with the Regular Settlement Report) in which the orders of Government on the settlement were conveyed to the Financial Commissioner, the sanction is said to be "for the period of 30 years, *i.e.*, up to A. D. 1880." But the orders of Government were lost sight of, probably in the confusion resulting from the mutiny; and the tenders of engagement remained unaltered and show the periods as not expiring till 1892 and 1893 in the case of some villages. It was held in 1879, on a reference to Government, that the period of Settlement for the whole District should be taken as expiring in 1880, and that this should be notified to the people.

Working of the Regular Settlement.
Gordon Walker, S. R., § 193.

There was only one refusal to engage for the Regular Settlement assessment, the village of Bairsal in Jagráon being leased for 10 or 12 years. In a few villages proprietary rights were transferred on account of refusal to engage in 1842, or for balances found to be due in 1847, but it does not appear that any difficulties followed the introduction of the Regular Settlement assessment of 1850. In only one village has the assessment been reduced since the revisions of Mr. Barnes. Notwithstanding that the assessment was severely tried by two periods of scarcity, the officers who have held charge of

CHAP. III, C.

Land Revenue.

Working of the Regular Settlement.

the District since all bear testimony to the fact that the assessment was light and fairly distributed. No coercive measures have been resorted to. The balances due to suspensions in the years of scarcity were insignificant (less than one per cent. of the demand), and were quickly realized. There has been little difficulty in collection anywhere, except in some parts of the Bet, and it may be said that any apparent slackness is due, not to inability to pay, but to a hereditary unwillingness to do so. This element will be appreciated if we compare our mild methods of getting in the revenue with those employed by our predecessors. A *lambardár,* who has probably had experience of the latter, is not likely to care much for the issue of a warrant. In the Muhammadan Bet (Rájpút and Gújar) villages there is generally a scarcity of cash, and the revenue has systematically to be borrowed, but this would still be the case if we were to reduce it by half.

THE REVISED SETTLEMENT.

Revenue of Regular Settlement, 1879-83.

In 1879 Mr. T. Gordon Walker began the revision of the revenue settlement, which he completed in 1883. His report will be found to contain the fullest possible detail; and the following pages, which are taken from it almost without alteration, touch upon the most important features and the general results of the revision. The general considerations upon which the new assessment was mainly based were the increase or decrease of cultivation, and of the means of production, the alterations in the price of agricultural produce and the general improvements in resources and condition of the tract under the expiring settlement.

Increase of cultivation. *Gordon Walker, S. R.* § 198.

The marginal figures from the statement in § 6 of Mr. Davidson's report of the First Regular Settlement show the area at that time still available for cultivation, and beneath are added the proportions as shown by the papers of the new survey and the most recent figures available.

Date.	Total area.	Cultivated.	Culturable.	Barren waste.
1850. Regular Settlement	875,968	666,503	133,068	76,397
	100	76	15	9
1880. Revised Settlement	882,167	729,009	86,664	66,494
	100	83	9½	7½
1901.	890,553	767,285	52,230*	70,841
	100	86	6	8

* Exclusive of 197 acres of forest.

Samrála	... ...	5 per cent.
Ludhiána	... ...	7 ,,
Jagráon	... ...	10 ,,

The increase in cultivation worked out for the whole District at nearly 8 per cent.; and 9½ per cent. of arable waste was returned at the Revised Settlement. The increase was distributed over the three tahsils as given in the margin, the percentage being highest in the Pawádh and Jangal assessment circles of Ludhiána Tahsil and in Jagráon. Notwithstanding the figures, there is little room now for further extension, and the margin left at the Regular Settlement has since been filled up. Nearly one-third of the culturable land of our returns is in the Bet, where it is more difficult than elsewhere to say of much of the waste that it is or is not capable of producing a crop that would repay the cost of cultivation. In the Dháia the culturable consists of areas left for grazing, which are of considerable extent in some of the outlying

CHAP. III, C.

Land Revenue.

Increase of irrigation.

and western villages, but generally very small patches, just enough for the cattle to stand in.

The only other way in which the productive power of the land had been increased was by the addition of the means of irrigation. The following statement of irrigation and of masonry wells shows the extent of this in each Tahsíl :—

Tahsil.	Samrala.		Ludhiana.		Jagraon.		Total.	
	Area irrigated.	Number of wells.	Area irrigated.	Number of wells.	Area irrigated.	Number of wells.	Area irrigated.	Number of wells.
Regular Settlement	44,653	2,547	43,979	3,233	14,009	1,080	102,641	6,860
Revised Settlement,	46,645	2,756	46,593	3,846	16,657	1,355	109,895	7,957
1901-02 ..	57,458	3,282	59,055	4,765	22,010	1,864	138,523	9,867

The increase in the area irrigated was 7 per cent., and in the number of wells 16 per cent.; but most of the new wells were small ones sunk in the low lands under Ludhiána. From this it will be seen that, even if it were allowable to tax to the full improvements due to the sinking of new wells, the enhancement on this account would be a small item; and the Settlement Officer dealt very leniently in his assessments with irrigated land, besides taking care that the constructors of new works should enjoy the full period of protection allowed to them by the orders of Government.

Prices. *Gordon Walker, S. R.*, § 199.

At Appendix XII to the Settlement Report will be found a note on the subject of the rise in the prices of agricultural produce, together with a table showing the variations during the 40 years, 1840-79. The inquiries extended over this period, or to about 10 years before the previous assessment, was fixed. The following statement shows the increase of the prices realized by agriculturist for the principal products during the 20 years, 1860-79, over those of the period, 1840-59, preceding it :—

	Wheat.	Gram.	Barley.	*Gur.*	Uncleaned cotton.	Maize.	*Moth* (pulse).	*Jowár.* (millet).	*Ráb* (cane juice).
Average of 1840-59 ...	100	100	100	100	100	100	100	100	100
Average of 1860-79 ...	158	148	165	140	164	162	153	221	131

Briefly stated, the history of the fluctuations is as follows. The Regular Settlement assessment was based on the prices of the few years preceding 1850, which were high; and its introduction was followed by a general fall. Prices continued very low till 1861, when famine sent them up; and they did not sink again to their old level. The scarcity of 1868-69, and the completion of the Sind, Punjab and Delhi Railway through the District in 1870, which opened the local market to the demands of the whole of India and its seaports, together with the general progress of the country, finally established prices at their present level; and it is not probable that they will ever again recede. During the 20 years before 1883 they were on the whole stationary; and, although this period includes four seasons of high prices (1862 and 1868, and the two years 1878 and 1879), this is not an abnormal number, nor is the

CHAP. III, C.

Land Revenue.

actual average unreliable. The above statement shows that the average of the prices realized during the 20 years, 1860-79, by the agriculturists for the ordinary staples of produce were 50 per cent. or upwards in excess of those of the previous 20 years.

Prices.

For the fluctuations in prices since Settlement see Table 26 of Part B.

Assessment Circles.

Gordon Walker, S. R. § 202.

The division into assessment circles made at the Regular Settlement did not follow any rational principle; and the supposed necessity for adhering to the old *pargana* divisions made it practically useless. At the Revised Settlement Mr. Gordon Walker adopted in each Tahsíl the natural features of the country as the basis of his arrangement.(1) The villages of the low-lying Bet tract were first separated off. The Ludhiána Bet was rather too extensive for convenience, and, as there is a great difference in the produce of the upper and of the lower portions of it, a sub-division was necessary; while of the former it was necessary to throw into a separate class those villages which have land subject to annual inundation (*mand* or *kachha*), as the area is of greater extent here than elsewhere along the river, and differs widely from that part which is removed from the river (*pakka*). In the next place the villages in the strip of sandy soil along the *Dha* or ridge over the Bet could not come into the same class as those further inland, and were placed in a circle by themselves. In Samrála and Jagráon the remainder of the Tahsíl was of so uniform a character that there was no necessity for sub-dividing it further. The uplands of Ludhiána, however, stretch much further south than those of the other tahsíls, and there is considerable diversity in the natural features. The outlying Jangal villages, with a small rainfall and no irrigation, naturally fell into a group by themselves; and as to the remaining portions there is so much difference between the south-western corner about Pakhowál and the rich tract round Malaudh, that the separation of these was necessary; and there was left the upper portion, corresponding to that of the other Tahsíls.

The low lands in the valley of the Sutlej are everywhere known as Bet, while the land exposed to the direct action of the river is called *kachha* or *mand*. The uplands are generally spoken of as Dháia or land beyond the high bank (*dha*). The tract immediately over the Bet has been called Lower Dháia, and that beyond it Upper, although the words *lower* and *upper* are not perhaps very appropriate. In Ludhiána Tahsíl the terms Jangal and Pawádh have been applied to the outlying villages and to the rich country about Malaudh respectively, while the tract round Pakhowál has been termed Tihára, or intermediate between them. The names Lower and Upper Dháia have been carried into the Jagráon Tahsíl for the sake of convenience. The assessment circles then are—in Jagráon and Samrála, Bet, Lower Dháia and Upper Dháia; and in Ludhiána three Bet circles, one of which is known as *kachha* and another as *pakka*, the Upper and Lower Dháia, and the Pawádh, Tihára and Jangal circles.

Assessments by Tahsíls and Circles: Samrála Bet.

Gordon Walker, S. R., § 219.

The Samrála Bet Circle contains 68 villages with a total area of 26,773 acres, of which 16,175 acres, or 60 per cent., are cultivated, 4,511 or 17 per cent. culturable or recently thrown out of cultivation, and 6,087 or 23 per cent. unculturable. It consists in the first place of the land (called *mand*) immediately adjoining the Sutlej and liable to annual inundation. The deposit left by the river is very fertilizing, and a rich clay soil is formed, but in places this is shallow and the under stratum of sand is soon reached. Beyond the *mand* the land is higher and the soil of more ancient formation and deeper (generally 3 or 4 feet). Water is near the surface, and there is seldom lack of moisture, so that artificial irrigation is not wanted. The soil of this

(1) It must be remembered that the division of the District into assessment circles was made before the Sirhind Canal was opened. For an account of the canal and the extent to which it has affected the District see pp.

CHAP. III, C.

Land Revenue.

Assessments by Tahsíls and Circles: Samrála Bet.

the *Pakka* Bet is generally a rich dark clay, very fertile, but requiring a great deal of tillage. In places there are sand drifts left by the river, but these are rare. Under the high bank runs the Budha Nála in the old bed of the Sutlej. The land to the south of the Budha, between it and the high bank, is generally very good, as it rises away from the former, and the soil has a mixture of sand from the Dháia. On the other side of the stream there is a strip of land rendered permanently barren by the proximity of the water, or actually swamped.

Gordon Walker, S. R., § 221.

Of the whole area 60 per cent. is in the hands of Muhammadan Jats, 23 of Muhammadan Rájpúts, and 5 of Gujars : and it is much the worst feature of this circle that 88 per cent. of the land is held by the most improvident classes. Of the cultivated area 3,490, or 21 per cent., is held by tenants-at-will, and 1,336, or 8 per cent., by tenants with occupancy right, or in all 30 per cent. of the cultivation is by tenants. The tenants belong for the most part to the same classes of the proprietors. The returns show that between the Regular and the Revised Settlements 2 per cent. of the whole land was sold, and that nearly 8 per cent. was in 1883 in mortgage with possession to the mortgagee. The percentages on cultivation were three sold and twelve mortgaged; and it is probable that only cultivated or culturable land was transferred. The average price of the land sold was Rs. 34 an acre; and the amount secured on mortgage Rs. 33. The land transferred has gone almost entirely into the hands of strangers. Thus on the whole nearly 10 per cent. of the total, or 15 per cent. of the cultivated area, has been transferred since the Regular Settlement, and most of it to the money-lending classes. These statistics are far from showing the whole indebtedness of the people. There are a few villages able to hold their own ; but they are a small proportion of the whole. Some have gone entirely into the hands of the money-lenders, the land having been sold, or being held in mortgage for such an amount that there is no chance of it ever being redeemed. There are colonies of bankers (Súds, Khatrís, Banias) in Máchhiwárá and Bahlolpur who live entirely by lending to the Bet cultivators; and many of these classes have established themselves in the villages (Panjgirain, Sherpur, &c.). The amount of money owed on book debts is enormous. It has been totalled up in some villages and found to amount to Rs. 10 or 15 an acre. The villages are all small, averaging about 400 acres total area, and many are on the money-lenders' books for Rs. 5,000 or upwards. There can be no doubt that the tract was at the Revised Settlement in a bad way; and that a large proportion of the land was passing out of the hands of the old proprietors into those of the money-lending class. There were many causes at work to produce this result.

Owing to the high rate at which rents in kind are paid, it was recognized that the assessment must, in the very depressed condition of the tract, be much under the produce estimate. The marginal statement shows the revenue rates finally adopted and their result. The calculated increase by these rates was 4,765, or 13 per cent.; but, owing to the necessity of assessing lightly new alluvial lands, it was expected that the village assessments would fall short of the sum. The assessments, former and new,

Soil.	Area in acres.	Revenue rate.	Resulting *Jama.*	Produce estimate.	Former assessment.
		Rs. As.	Rs.	Rs.	Rs.
Irrigated ...	293	4 0	1,172	1,493	...
Dofasli ...	10,897	2 10	28,604	35,305	...
Ekfasli ...	4,995	1 8	7,492	8,906	...
Total ...	16,185	2 4	37,268	45,704	32,503

CHAP. III, C.

Land Revenue.

Assessments by Tahsíls and Circles: Samrála Bet.

and the result of the rates were as shown in the margin. The actual enhancement was Rs. 3,829, or 12 per cent. This increase is a small one, and it was on the whole distributed evenly over the villages. It is not likely to make much difference in the condition of the tract; and, if regard be had to the productive power of the land, the new assessment is moderate, for the tract is a very fertile one. The greater part of the proprietors, and certainly all the Muhammadan Rájpúts, are hopelessly involved in debt, and the only measure that could do them any good would be the suspension of the action of the ordinary Civil Courts.

	Rs.
(1). Demand for 1880-81	32,234
(2). Assessment by the sanctioned rates	38,468
(3). Actually announced	37,063

Samrála: Lower Dháia Circle.

Gordon Walker, S. R., § 226.

The Lower Dháia Circle consists of certain Dháia villages whose lands extend into the Bet also, and therefore includes a certain area of Bet as well as of Dháia. The total area is 31,482 acres (contained in 30 villages), of which 25,035, or 79 per cent., are cultivated, 2,461 culturable or lately abandoned, 2,514 unculturable waste, and 1,472 Government property (land under the canal and roads). The Bet portion of the circle is for the most part very fertile, the land sloping down to the Budha Nála, where this stream is at a little distance from the high bank. The soil is generally lighter than that of the rest of the Bet, there being a mixture of sand from the Dháia with it, and produces without irrigation splendid crops of sugarcane and cotton. There is also some good irrigated cultivation. But to the east, about Poáwat and Bahlolpur, the Budha is close under the high bank, and there is a great deal of swamp, the land being all to the north of the stream. The Dháia proper is a tract with an uneven surface and a light sandy soil, which shifts about under a strong wind, and is blown into hillocks. Ordinarily it has the appearance of a desert; but the soil is very retentive of moisture, and under favourable circumstances good crops are grown. The Kharíf crop is mostly *moth,* for the growth of which the soil is adapted. With a light rainfall, when better land will bear nothing, fair Rabi crops of wheat, or wheat and gram, are grown; but they are liable to be buried under the shifting sand. A heavy rainfall, such as suits soils with more clay in them, is bad for this. Round the villages are the wells, and the land attached to them is generally superior and highly cultivated; but there is a continual struggle to keep out the drifting sand. For this purpose trees (the *ber* generally) are planted or hedges put up as barriers. The worst villages are those adjoining the high bank. The surface in them is very hillocky, and the soil therefore more liable to shift. The villages adjoining the Upper Dháia Circle have generally a more level surface; and, though the soil is poor, the crop is not so subject to injury from drift. But altogether the tract is an inferior one as regards natural advantages. Of the cultivated area of the Dháia 63 per cent. is classed as sand (*bhúr*), and 30 per cent. as light loam (*rausli*), while only 7 per cent. is irrigated.

Gordon Walker, S. R. § 229.

Hindú Jats hold 49 per cent. of the area, Muhammadan Jats 27, and Muhammadan Rájpúts 7. The Muhammadans are found in the villages on the high bank just over the Bet; and the character given to those in the Bet applies to them. The Hindu Jats are not so well-to-do as men of their class generally. They are for the most part industrious; but the soil is very inferior and yields but a poor return for their labour, and they find it difficult to subsist. Of the cultivated area 938 acres (3½ per cent.) are held by tenants with rights of occupancy, and 6,226 (24½ per cent.) by tenants-at-will; in all 7,164 acres, or 28 per cent. About 6 per cent. of the whole area has been sold since the Regular Settlement, and of this two-thirds to strangers of the money-lending class; while 8½ per cent. is mortgaged with possession, three-fifths to strangers. The prices per acre are Rs. 18 for sale, and Rs. 15

CHAP. III, C.

Land Revenue.

Samrála: Lower Dháia Circle.

secured by mortgage; and the low averages show that the land is not valued as an investment. There is not much debt outside of these figures, for money cannot be raised without the security of the land. Complaints are made very generally; and a good many of the villages are badly off. Discontent is general, and there can be no doubt that the tract is by no means in a flourishing condition, a result that may be attributed chiefly to the poverty of the soil. The assessment of the Settlement Officer in 1852 was not very well received; and was revised in 14 out of 30 villages by the Commissioner, who gave a reduction on the whole *jama* of 4½ per cent.

The revenue rates finally sanctioned and their results are shown below:—

Soil.		Area in acres.	Rate.	Resulting *jama.*	Half asset estimated.	Former assessment.
			Rs. a. p.	Rs.	Rs.	Rs.
Bet ...	Irrigated ...	173	4 8 0	773	1,111	...
	Dofasli	2,275	3 0 0	6,825	9,193	...
	Ekfasli ...	948	1 12 0	1,659	2,374	...
Dháia ...	*Cháhi*	1,311	3 0 0	3,933	4,771	...
	Rausli	641	1 0 0	6,411	5,074	...
	Bhúr	13,917	0 10 0	8,698	8,389	...
Total		25,035	1 2 1	28,299	30,912	25,892

The above gives an increase of Rs. 2,407, or ·8 per cent. The assessments actually announced amounted to Rs. 28,154, and were well received. The tract is a very poor one; but the assessment was and still is very light; and there is some very good land in the villages adjoining the Bet, and again in those next to the Upper Dháia Circle.

Samrála: Upper Dháia Circle.

Gordon Walker, S. R., § 233.

The Samrála Upper Dháia Circle contain 170 villages with a total area of 126,324 acres, of which 107,750, or 84 per cent., are cultivated; 8,627 culturable or recently out of cultivation; and 9,947 Government property or unculturable waste. It stretches south from the Lower Dháia in a plain of uniform surface, except where two belts of sand, each of about one mile in width, run across it from north-east to south-west. The soil varies from a stiff clay to a light sand, the latter being found in the neighbourhood of these belts, and the former in depressions. The prevailing soil is a good loam, generally of dark colour, friable and most fertile. The percentages of soils according to our present classification are—irrigated, 42; clay, 3; loam, 43; sand, 12.

Gordon Walker, S. R., § 235.

Of the revenue-paying area 80 per cent. belongs to Hindu Jats, 8½ to Muhammadan Rájpúts, 2½ to Muhammadan Gújars, and 2½ to Muhammadan Jats. The Hindú Jats are a most industrious and thrifty class; and it is fortunate that the proportion of them is so large. The Muhammadan Rájpúts are notorious for their improvidence; and are the worst possible revenue-payers. At the Regular Settlement this was fully recognized, and allowance was made in the assessments of their villages; but such consideration has not had much effect on their condition. They are, as a class, very much involved in debt; their villages contribute most of the area in the returns of sale and mortgage. The returns show 1 per cent. of the total area sold since the Regular Settlement, but nearly three-fourths of this has gone to coparceners. The average nominal price realized is Rs. 35 an acre. The land mortgaged with possession of the mortgagee amounts to 4½ per cent. of the whole, and of this nearly one-half is in the hands of members of the

village community. The whole area transferred to the money-lending class proper by sale and mortgage is thus about 2 per cent. The amount secured per acre on usufructuary mortgage is Rs. 27. The inference to be drawn from these figures is that only a small portion of the land has changed hands, and that very little of it has gone to the money-lending class. The ordinary Jat is most tenacious of his land, and the price paid shows how it is valued.

The actual condition of the tract agrees with the result of these statistics. The people are uncommonly well-to-do, except in some of the Rájpút villages where the thriftless habits of the landowners are bringing them to ruin. But the money-lender has scarcely any hold at all on the Jats, nor is he ever likely to have more. There is a good deal of hard cash amongst them; and, if one of the number is in difficulties, he can always find some of his fellows to make an advance on the usufruct of a part of his land. There is of course a certain amount of floating debt; but this is no more than a couple of good harvests will clear off. If a money-lender has got a hold on the borrower he will insist on having the land and receiving a share of the produce; and it is a sure sign of the temporary nature of the debt when the land remains with the proprietor. There are not many external signs of prosperity such as one is led to expect from the experience of other Districts. The people are very fond of their money, and waste none of it on show. The houses are neat, but have seldom any pretensions. A well-to-do Jat has no horse and not more cattle than he absolutely requires. He dresses very plainly, and spends little on the clothes and food of his family. His great aim is to get some more land into his hands; and he will keep his savings till a chance occurs of investing them in a mortgage. The best evidence of the prosperity of the agricultural population is that they can always dispose of their surplus produce to whom they like, and when they like. In most houses will be found stocks of grain or cotton more than sufficient for the use of the household, and kept in the hopes of a rise of prices. The *gur* is bought up from them as fast as it is made. They have not even the trouble of taking their produce to market, for there is a keen competition between the traders, who go amongst the villages and buy on the spot. The Jats are careful to get a good price; and the margin of profit left to the trader is never excessive.

The new rates proposed by the Settlement Officer and the results of their application were as given in the margin. The assessment of the last year of the Regular Settlement, including nominal assessment of revenue-free grants, was Rs. 2,07,296; and the proposed assessment would have given an increase of Rs. 49,579, or 24 per cent.

SOIL.	Area.	Rate.		*Jama.*	TOTAL.
		Rs.	a.	Rs.	Rs.
Niai ...	16,049	4	12	76,236	...
Simple well ...	28,791	3	8	1,00,765	...
Other irrigation	28	3	0	84	...
Rausli ...	49,536	1	6	68,112	...
Bhúr ...	13,346	0	14	11,678	2,56,875

The Lieutenant-Governor, in sanctioning these rates, requested the Financial Commissioner to impress upon the Settlement Officer the necessity for treating with care and leniency those villages in which, from the small size of the holdings, an increase was likely to be felt, and His Honor further considered that 20 per cent. should be the maximum increase to be taken in the circle. The actual results raised the assessment from Rs. 2,07,643 to Rs. 2,46,293, an increase of Rs. 38,650, or 19 per cent. This increase was somewhat under that directed; but it was found that there were several Muhammadan villages in which the Settlement Officer had to go very far below rates. With the exception of these villages the enhancement was evenly distributed over the tract, and the new assessments were well received.

CHAP. III. C.
Land Revenue.

Ludhiána: Bet I Kachha Circle.
Gordon Walker, S. R., § 240.

The first circle for consideration in the Ludhiána Tahsíl is the *mand* or strip of land along the bank of the river; and in this have been included only the villages of which the greater part of the area is liable to annual inundation. The circle contains 15 villages with an area of 8,757 acres, of which only 2,677, or 30 per cent., are cultivated; 3,487, or 39 per cent., culturable; and 480, or 5 per cent., lately abandoned. The remainder, 26 per cent., is unculturable. The small proportion of cultivated area to culturable and barren is not to be wondered at in a tract like this. The unculturable is sand along or in the bed of the river, and the culturable is the ordinary new land found on its banks, covered with a growth of *pilchi* or of reeds. Most of this will eventually be cultivated, unless destroyed by the river. The land of this circle is nearly all liable to annual inundation; and people live in adjoining villages of the *pakka* Bet, and sometimes in a corner of their own, as the land is under water during most of the hot weather. The silt left by the overflow of the river is generally very fertilizing, and the land is really renewed annually. The soil is a clay-loam on a substratum of sand. When the deposit has attained a depth of nine inches to a foot, the plough can be worked in without bringing up the sand, and cultivation is possible. But good crops cannot be grown unless the sand is from one to three feet distant from the surface, the further the better.

Gordon Walker, S. R., §§ 242 & 243.

The land is held by the various tribes, thus: Muhammadan Rájpúts, 57 per cent.; Muhammadan Gujars, 10; Muhammadan Jats, 14; Hindú Lobánas and Banjàrás; 16; others, 3. The Muhammadans are not well suited to the ups and downs of an alluvial circle, but they are fairly well-to-do. The Banjáras engage a good deal in trade, and do not depend entirely on cultivation. Of the total area less than one per cent. has been sold since the Regular Settlement, and 8 per cent. is now held in mortgage. The price in the case of sale is Rs. 40 an acre, and the mortgaged money per acre Rs. 17. The whole area mortgaged has gone to money-lenders; but it is made up almost entirely by one Rájpút village, of which the whole land has been mortgaged. With the exception of this one village the circle is in good condition. The produce is excellent and the people keep out of debt, and are generally well-to-do. But they are of course liable to lose their land any year from the action of the river. The Regular Settlement gave a large reduction on the *jama* of the summary assessment, and was 20 per cent. under rates. The present assessment is very light.

Gordon Walker, S. R., § 245.

The marginal statement shows the rates sanctioned and their result as compared with the produce estimate. As in Samrála it was expected that the village assessments would fall short of the above total on account of new land favourably assessed; and, in the case of the land included in the *kachha chak,* or area liable to annual assessment, *dofasli* rates of Rs. 2-10 and Re. 1-10 were to be applied instead of the full rates. The assessment announced and reported amounted to Rs. 4,900, as against a total by rates of Rs. 5,039, there having been considerable changes in the area of the report, as in the case of Samrála; and the enhancement on the demand of the last year, Rs. 4,049, was 21 per cent.

Soil.	Area.	Rate.	Resulting assessment.	Half asset estimate.
	Rs.	Rs. a.	Rs.	Rs.
Irrigated ...	24	3 12	90	141
Dofasli ...	1,283	2 12	3,558	4,798
Ekfasli ...	1,370	1 12	2,397	2,858
Total ...	...	...	6,045	7,797

CHAP. III, C.

Land Revenue.

Ludhiána: Bet I Pakka Circle.

Gordon Walker, S. R., § 426.

Bet I Pakka comprises the rest of the villages of the Bet portion of Bhartgarh and Sáhnewál *parganas*. It contains 58 villages with a total area of 32,048 acres, of which 21,237, or 66 per cent., are cultivated; 8,078, or 25 per cent., culturable or lately abandoned; and 2,733, or 9 per cent., barren waste. Part of the land of one or two villages is in the *mand* and subject to inundation, but with this exception the tract lies high, beyond the direct influence of the river. Towards the high bank, too, very few villages adjoin the Budha Nála, which runs for the most part through the Bet portion of the Lower Dháia Circle. There are a good many *nalas* or streams running across the tract, which fill in the rains, but seldom overflow their banks. The soil, like that of Bet lands generally, is a stiff dark clay-loam on a substratum of sand, very fertile when properly cultivated. The water level is near the surface, and there is always abundance of moisture. In places there is tendency to *kallar;* but this is not common, and land so affected is mostly uncultivated. Sand ridges occur, but the sand does not shift. The stratum of clay is shallow here and there and the sand appears on the surface; but, as a rule, the clay reaches to 5 or 6 feet below the surface. Irrigation is everywhere easy, water being found at a depth of 8 to 12 feet, and there is more of it than in Samrála Bet. The proportion of irrigated land is 5 per cent. of the cultivated area of the whole circle; but it lies mostly in the villages to the west. In the eastern part, as in the Samrála Bet, irrigation is not required, and superior or *dofails* cultivation is carried on in the unirrigated land.

Gordon Walker, S. R. § 248.

Of the whole area 93 per cent. is held by Muhammadans, thus: Rájpúts, 22; Gujars, 34; Jats, 19; Aráins, 7; others, Awáns and Sayyids principally, 11. The Hindús, who hold 7 per cent., are mostly Lobánas. The Rájpúts are bad husbandmen, and do not willingly cultivate their own land. The Jats and Gújars are more industrious and well-to-do. The condition of the tract is better than that of the Samrála Bet, a result that may be attributed principally to the small area under sugarcane cultivation, for where cane is grown the cultivator is driven to the money-lender. There is no such eagerness here on the part of the money-lenders to make advances to the agriculturists; and the latter are more thrown on their own resources, and, as a rule, incur debt only when compelled to do so for a marriage, on account of a bad harvest, or for some such cause. They ordinarily live on the grain that they grow themselves. Some of the villages, such as Kariána, Baliewál, &c., are very prosperous; and few are really much involved, though proprietors in most will be found in debt. It cannot, on the other hand, be said that there is a great deal of wealth in the circle. The wheat and cotton are mostly sold; and good prices are realized for vegetables, which are bought by traders from the city, and for straw sometimes. The proportion of the agricultural population who are well-to-do, and can dispose of their own surplus produce when they like, is considerable; but not nearly so large as in the Dháia. Such money as may be saved is generally kept in hard cash or invested in land. There is no display of brass dishes, &c., for the Muhammadans do not use them; and only sufficient cattle are kept for the use of the household, except by the Gújars, who dispose of the milk and *ghi* produced by their buffaloes and cows.

Gordon Walker, S. R. § 248.

Of the total area 1½ per cent. has been sold since the Regular Settlement, and 6½ per cent. is now in mortgage. Of the sales 33 per cent. are to agriculturists, and of the mortgages 50 per cent., so that the area transferred since the Regular Settlement to the money-lending classes is less than 5 per cent. on total area, and 6½ per cent. on cultivation. The average price per acre is for sale Rs. 46 and for mortgages Rs. 34. There is a good deal of money owed on book accounts, as might be expected from the character of the people

CHAP. III, C.

Land Revenue.

for Muhammadans seldom get on without the assistance of the money-lender; but the debt of this sort is not nearly so great as in the Samrála Bet, nor does it press very hard.

Ludhiána: Bet I Pakka Circle. *Gordon Walker, S. R.,* § 253.

The rates sanctioned for this circle and the resulting assessments are shown in the margin. Some villages in this circle, too, contain new alluvial land which had to be assessed favourably; and the assessments announced gave a total of Rs. 41,519, being an enhancement of 20 per cent. on the demand of the last year (Rs. 34,207), and the *jama* given by rates for the year of announcement being Rs. 41,602.

Soil.	Area.	Rate.	Resulting *jama*.	Half asset estimate.
		Rs. a.	Rs.	Rs.
Irrigated ...	1,118	3 12	4,192	6,051
Dofasli ...	7,016	2 8	17,540	21,488
Ekfasli ...	13,103	1 7	18,836	22,704
Total ...	...	...	40,568	50,243

Ludhiána: Bet II Circle *Gordon Walker, S. R.,* § 254.

Assessment Circle Bet II is the western part of the Ludhiána Bet, and includes nearly the whole of *pargana* Núrpur. It is about 12 miles in length and 4 in breadth, and contains 67 villages with a total area of 41,305 acres, of which 26,121, or 63 per cent., are cultivated. There has been a loss by diluvion since the Regular Settlement of 14 per cent. of the total area, and some villages have lost almost the whole of their land. A Kachha Circle was not separated off, because there is very little good *mand*. The soil of Bet II is for the most part much inferior to that of Bet I (Pakka), and the rainfall is considerably less. The Budha Nála is the boundary of the circle to the south, and joins the river just outside it, so that all the land on the north bank of this stream is included. This is in parts very inferior, being either unfit for cultivation, or yielding very poor crops, and that not every year. *Kallar* is more prevalent than in the eastern Bet, and barren patches are to be found in the best wheat fields, especially about Núrpur. As in Bet I irrigation is easy, water being at about the same depth. The proportion of irrigated land is 9 per cent. to the cultivation.

Gordon Walker, S R., § 256.

The land is thus distributed amongst the agricultural classes: Muhammadan Gújars, 44 per cent.; Muhammadan Rájpúts, 10; Muhammadan Aráins, 10; Muhammadan Awáns, 11; Muhammadan Dogars, 10; Hindús, 4; others, 11. Gújars predominate as proprietors. The Aráins are very common as tenants, besides cultivating a large proportion as proprietors. The Awáns and Aráins are, as a rule, well-to-do, and so are the Gújars in the villages away from the river and near the city. The tract is for the most part in fairly good condition. The villages on the margin of the river, which belong mostly to Gújars, have lost a great deal of land, and the proprietors have become involved on this account. But there are a number of first-rate villages removed from the river with a great deal of irrigated land, belonging to all classes of proprietors. The people of these derive great benefit from the proximity of Ludhiána, where they have a ready market for their produce of all sorts, and whence they can obtain a plentiful supply of manure. The Regular Settlement gave a small reduction on the summary assessment. The revenue has been realized without any difficulty, except in one or two of the Gújar villages along the river, which have suffered most from its action. The returns show 3½ per cent. of the total area (or 5½ of the cultivated area) sold since Settlement, and 4½ (or 7 of cultivation) held in mortgage now. The prices per acre are Rs. 37 for sale and Rs. 29 for mortgage, the price per rupee of Government demand being much the same as in Bet I. Of the land sold two-thirds has gone to agriculturists

CHAP. III, C.

Land Revenue.

and one-third of the mortgaged land is held by them. Thus the proportion of land transferred to outsiders is 4½ of the total, or 6 per cent. of the cultivated area.

Ludhiána: Bet II Circle. *Gordon Walker, S. R.,* § 260.

The rates sanctioned and the resulting assessments are given in the margin. When the assessment given by the rates came to be distributed over the villages of this circle it was found that, even after making allowance for the new alluvial lands, the rates gave higher *jamas* than could be taken; and those finally reported amounted to Rs. 35,535 as against a rate *jama* of Rs. 36,738, which was still an actual increase of 23 per cent. on the last year's demand of Rs. 28,288.

Soil.	Area.	Rate.	Resulting assessment.	Half asset estimate.
		Rs. a.	Rs.	Rs.
Irrigated ...	2,454	3 12	9,202	11,036
Dofasli ...	1,458	1 10	2,369	2,994
Ekfasli ...	22,209	1 4	27,761	29,428
Total ..	...	...	39,332	43,458

Ludhiána: Lower Dháia Circle. *Gordon Walker, S. R.,* §§ 261 & 262.

The Lower Dháia Circle of Ludhiána is a continuation of that of Samrála, and a detailed description of it is not necessary. It extends for the whole breadth of the Tahsíl, and contains 78 villages with a total area of 73,604 acres, of which 79 per cent. is cultivation. The Dháia portion is much better than that of Samrála, because several fine villages have been included, and the percentage of irrigation and good soils is as follows: irrigated, 7½; *rausli*, 62½; while *bhúr* is only 30 per cent.

The crops and husbandry of the Dháia portion are the same as in Samrála, while in the Bet lands they agree with those described for the Pakka Bet Circles of Ludhiána. The land is divided thus between the various agricultural tribes: Muhammadan Rájpúts, 30 per cent.; Muhammadans Gújars, 9; Muhammadan Aráins, 4; Muhammadan Jats, 3; Muhammadan Awáns, 6; other Muhammadans, 6; Hindu Jats, 35; other Hindús, 7. The Muhammadans hold the villages along the high bank, those with land in Bet and Dháia; and the Hindús, those adjoining the Upper Dháia. Some of the large villages along the high bank belonging to Rájpúts are in very bad condition. The lands of these (both Bet and Dháia) are not very good, and the cultivation poor; but the assessment is extremely light, and it is entirely owing to the thriftless habits of the proprietors that they are in such a state. The Hindu Jat, Awán and Aráin villages are all well conditioned, and there is little complaint of debt in most of them. But the tract does not enjoy many natural advantages, and is, as a whole, the worst off in the Tahsíl. The assessment of the Regular Settlement was a considerable increase on that of the Summary Settlement; but it was realized without trouble, except in one or two villages where the *lambardárs* are themselves in difficulties. On the whole, though some of the Dháia lands are very inferior, the condition of the circle is not really bad. Of the total area 3 per cent. has been sold since the Regular Settlement, but three-fourths of this has gone to agriculturists, while 7½ per cent. is now held in mortgage, half of it by the money-lending classes. The prices realized are Rs. 45 an acre on sale and Rs. 28 on mortgage. The land sold and mortgaged is mostly in the Dháia. In the returns are included two whole villages (one sold and one mortgaged), and this has run up the area. There is a good deal of book debt, and the Rájpút and Gújar villages more especially owe large sums. Land fetches a very good price.

CHAP. III, C.

Land Revenue.

Ludhiána : Lower Dháia Circle.

The rates sanctioned and the resulting assessments are shown in the marginal statement. The Settlement Officer was directed in the orders sanctioning the rates to go above them and to take up to a 10 per cent. enhancement if it appeared prudent to do so. No difficulty was experienced in taking a total assessment of Rs. 80,100 as against an assessment by rates of Rs. 79,341(1); an enhancement of 10 per cent. on the last year's *jama* of Rs. 71,404.

	Soil.	Area.	Rate.	Resulting *jama.*	Half assets estimate.
			Rs. a.	Rs.	Rs.
Bet.	Irrigated ...	1,439	3 12	5,396	6,874
	Dofasli ...	2,675	2 4	6,018	7,075
	Ekfasli ...	6,530	1 4	8,162	7,894
Dháia.	*Niái cháhi* ...	2,444	3 8	8,554	11,256
	Khális cháhi ...	1,169	2 8	2,922	3,380
	Rausli ...	29,933	1 2	33,674	30,454
	Bhúr ...	14,509	0 12	10,882	9,612
	Total ...	...	1 4	75,608	76,546

Ludhiána : Upper Dháia Circle. *Gordon Walker*, S. R., § 265.

The Upper Dháia Circle contains 112 villages with a total area of 108,145 acres, of which 95,135, or 88 per cent., are cultivated. It is the central portion of the Tahsíl, stretching right across it. The greatest length from east to west is 22 miles, and the breadth varies from 2 to 12. The tract does not differ much in character from the Samrála Upper Dháia. The soil is generally somewhat lighter, and the surface cut up more irregularly by sand ridges; but stretches of as good loam as any in Samrála occur, and the proportion of actually inferior soil is not quite so great. The water level lies at about the same depth (40 feet), and irrigation is quite as easy. The proportion of irrigation is less here than in Samrála (22 as against 42 per cent.), and there is not so much high cultivation. But the unirrigated lands at all events are equal to those of Samrála, perhaps even better adapted to dry cultivation. The proportion of irrigation, *rausli* and *bhúr* are—irrigated, 22 per cent.; *rausli*, 63 ; *bhúr*, 17.

Agricultural tribes and tenures. *Gordon Walker*, S. R., § 266.

The proportions of land held by the various agricultural tribes are—Hindu Jats, 86 per cent.; other Hindús, 8 ; Muhammadan Jats, 3 ; others, 3. Of the Hindu Jats the Garewál *gót* hold 26 per cent. of the whole area of the circle, the rest being divided between the Gil, Sekhon, Dhilon and other *góts*. The Garewáls are probably not much inferior as cultivators to the others, but more given to extravagance. Most of the land of the circle therefore belongs to the best class of agriculturists. The cultivating percentages are—by proprietors cultivating their own land, 76 ; by occupancy tenants, 4 ; by tenants-at-will, 20. The land under tenants-at-will is thus made up by mortgagors cultivating their own land, 2½ ; by proprietors of other land, 9½ ; by tenants who have no proprietary or occupancy rights, 8.

Gordon Walker, S. R., § 267.

Of the total area 2 per cent. has been sold to agriculturists since the Regular Settlement, most of it (⅘ths) within the village ; and only one-half per cent. has gone to money-lenders. The proportion of area mortgaged is 4 per cent. to money-lenders, and of this about one-third is without possession of the mortgagee. The total transfers amount to 2½ per cent. sold since Regular Settlement and 8 per cent. now in mortgage. In such a large circle it might be expected that the condition of all villages would not be alike. Some are weak, either on account of inferior soil, or because the people have got into debt in bad years and have not been able to extricate themselves. One or two villages were disorganized in the Summary Settlement and had their land transferred ; but the tenacity with which it has been held by the purchasers, and the constant attempts of the original owners to recover it, show how much

(1) The difference between this amount and the figures of the above statement is due to subsequent transfers of villages.

CHAP. III. C.

Land Revenue.

Agricultural tribes and tenures.

it is valued. The great majority of the villages are strong communities, perfectly self-dependent. The proprietors seldom owe more money than they could pay off with a slight effort; and they are able to dispose of their surplus produce themselves in Ludhiána, and watch the market quite as keenly as the ordinary trader does. The dwellings present generally an appearance of prosperity, and there is more display of it than in Samrála. Good houses, good cattle, brass dishes, jewelry are the signs of wealth to be looked for, and they are generally to be found. Most houses have a store of grain, the produce of one harvest being kept till the next one is secure, unless very high prices tempt it out. Large sums of money are spent on marriages and funerals, extravagance of this sort being greatly on the increase. Altogether there are unmistakable signs that the tract has thriven under the former assessment, which gave a slight reduction in the villages that had been summarily assessed and has been collected without any trouble at all.

Soil.	Area.	Rate.	Resulting *jama.*	Half asset estimate.
		Rs. a.	Rs.	Rs.
Niái cháhi ...	12,437	4 8	56,166	65,715
Khális chahi...	8,170	3 4	26,952	30,442
Dákhar and *rausli.*	60,196	1 6	82,770	95,158
Bhúr ...	14,332	0 14	12,541	12,469
Total ..	...	...	1,78,429	2,00,784

The marginal statement gives the rates finally adopted for this circle and their results. The assessments announced amounted to Rs. 1,70,693, the result of the rates after such alteration in the limits of the circle as it was necessary to make, being Rs. 1,71,212, and the increase 17 per cent. on the previous demand.(1)

Ludhiána: Pawádh Circle.

Pawádh Circle contains 39 villages with a total area of 34,972 acres, of which 27,332, or 78 per cent., are cultivated, and 5,867, or 16 per cent., culturable or recently abandoned. It embraces the upper part of *pargana* Malaudh, and is held in *jagír* by the Sardárs of Malaudh, with the exception of three or four villages. There are two outlying villages attached to the circle. The Pawádh does not materially differ from the Upper Dháia, except that the soil is generally harder, containing more clay, and better adapted to irrigated than to unirrigated cultivation. There are one or two sand drifts and lighter soil in their neighbourhood, but a stiff loam of dark colour predominates. The water level is closer to the surface, being generally at a depth of about 30 feet. Irrigation from wells covers 29 per cent. of the cultivation. The average population per square mile of cultivation (630) is much higher than in any other circle of the Tahsíl, and only a little lower than that in Upper Dháia Samrála.

Gordon Walker, S. R., §§ 272 & 273.

Of the total area 94 per cent. belongs to Hindu Jats of the Bhander and miscellaneous *góts*. They are a most industrious and thrifty race, and no other tract can show such a large proportion of good cultivators. Even amongst Jats the people of the Pawádh are noted for their industry. Proprietors cultivate 82, occupancy tenants 2, and tenants-at-will 16 per cent. of the area.

The returns show that of the whole area 1½ per cent. has been sold since the Regular Settlement, while 7 per cent. is now held in mortgage. About half of the sales have been to other members of the village community and only a third to non-agriculturists. About a quarter of the mortgages are without possession of the mortgagee, while the whole of these and about half the mortgages with possession are to money-lenders. The people have by

(1) See footnote to last page. An interchange of villages between these two circles was found necessary.

CHAP. III. C.
Land Revenue.
Ludhiána: Pawádh Circle.

their thrift and industry attained a condition of great prosperity, and the villages are almost without exception held by strong independent communities. In fact there is no village that can be said to be badly off, while some are notorious as containing great wealth. The proprietors dispose of their produce either to traders on the spot or take it to Ludhiána, and there is not much debt of any sort. The villages were not assessed in the Summary Settlement, but Section 10 of Mr. Barnes' Review gives the marginal details for the whole *jágír*, that is this and the Jangal Circle.

	Rs.
Jágírdárs estimate of their collections ...	1,15,938
Regular Settlement assessment ...	74,950

The *jâgírdárs* took in grain and in cash, and their estimate was naturally exaggerated, though not very much; and there is no doubt that they took the equivalent of nearly half as much again as the Regular Settlement assessment. The rates at which they made their collections were little, if anything, under proprietors' rates, and the Regular Settlement assessment gave a reduction of nearly two-fifths on these.

Gordon Walker, S.R., § 275.

Soil.	Area.	Rate.	Resulting assessment.	Half asset estimate.
		Rs. a.	Rs.	Rs.
Niái cháhi ...	6,649	4 2	27,427	28,879
Khális cháhi ...	1,341	3 0	4,023	4,145
Rausli and *Dákhar* ...	16,228	1 4	20,285	21,776
Bhúr ...	3,114	0 13	2,530	2,577
Total ...	...	...	54,265	57,377

In the margin is a statement of the sanctioned rates and the results. The assessments actually announced amounted to Rs. 54,360, an enhancement of 22 per cent.

Ludhiána: Tihára Circle.
Gordon Walker, S. R., § 276.

The Tihára Circle contains 62 villages with a total area of 66,112 acres, of which 59,167, or 90 per cent. are cultivated. It is the south-west corner of the upper part of the Tahsíl, and comprises the whole of *pargana* Pakhowál, and some villages of Ghungrána. The natural features of the circle do not differ very much from those of Upper Dháia. The soil is somewhat lighter, and although the water-level is nearer to the surface (about 35 feet generally), irrigation is not so common, only 15 per cent. of the cultivation being irrigated. Of the unirrigated area 78 per cent. is good soil (that is *dákha* or *ausli*) and 22 *bhúr* or sand. There is no proper record of the rainfall; but it may be taken as two or three inches less than that of the last two circles. The present density of the population is 493 to the square mile of cultivation.

Gordon Walker, S.R., §§ 278 & 279.

Of the land of the circle 84 per cent. is cultivated by proprietors, 2 by occupancy tenants, and 14 by tenants-at-will. Hindu Jats own 78 per cent. of the aréa; and there are one or two Rájpút villages, this tribe having 9 per cent. of the whole land. The principal *gôts* of Hindu Jats are Garewál 13, Dháliwál 10 and Bhander 4 per cent. The Rájpúts of the circle are perhaps worse than their class generally, more thriftless and worse cultivators. Most of the villages are in very good condition, being in the hands of large and strong communities. The Rájpúts are in debt; but the Jats are well-to-do, and, as a rule, independent of the money-lender. A succession of good harvests and the high prices now realized for the inferior grains grown in unirrigated land have brought a great deal of wealth into the circle, and in every village some of the proprietors are engaged in trade and own carts or camels which they ply for hire. Numbers too are in the service of our Government or of the Native States about. The houses are well built and comfortable, and generally contain good stores of grain and cash. It was not found necessary to give much reduction of assessment in the Regular Settlement (about 3 per cent.); and the present *jama* has been collected without any difficulty. Of the total area three-quarters per cent. is shown as sold since Regular Settlement, and of this most has gone to agriculturists. The registration returns, which

are up to date, give a much larger area, amounting to 1½ per cent. of the whole. The area now held in mortgage is 4½ per cent. with possession of mortgagee and one per cent. without possession. Of the former about one-third is to outsiders and two-thirds to agriculturists. The price of land sold is Rs. 72, while the average money secured on mortgage with possession is Rs. 37. For sale the price per rupee of Government revenue is Rs. 50 and for mortgage Rs. 26. The price realized for land in this circle is by the returns higher than in any other, and there can be no doubt that this is the sort of land that has most attractions to an investor.

CHAP. III, C.

Land Revenue.

Ludhiána: Tihára Circle.

Gordon Walker, S. R., § 281.

Soil.	Area.	Rate.	Resulting assessment.	Half asset estimate.
		Rs. a.	Rs.	Rs.
Niái cháhi ...	5,947	4 0	23,788	29,602
Khális cháhi ...	3,310	2 12	9,102	10,137
Rausli ...	39,117	1 4	84,854	48,745
Bhúr ...	11,243	0 12	7,807	8,790
Total ...	...	...	89,553	97,274

In the margin is a statement of the revenue rates sanctioned for this circle, with the results on the figures of the Assessment Report. The assessments announced amounted to Rs. 95,998, the *jama* by rates being, after the transfer of two or three villages from the Upper Dháia Circle, Rs. 96,073, and the enhancement to 20 per cent.

Ludhiána: Jangal Circle.

Gordon Walker, S. R., § 282.

The Jangal Circle contains 29 villages with a total area of 69,026 acres, of which 59,208, or 85 per cent., are cultivated, and 7,479, or 11 per cent. culturable. The villages are all held in *jágír* by the Malaudh family, and lie to the south of the Jagráon Tahsíl in detached groups surrounded by Nábha and Patiála territory. The distance from Khiáli, the most northern village, to Bhaini Chuhar, the most southern, is nearly 40 miles. The latter is more than half way from the boundary of Jagráon Tahsíl to that of the Ferozepore District. The principal groups are those of Sahna and Dhapáli, which are adjacent and between them contain 21 villages. Sahna may be taken as the centre of the tract, and it is 24 miles from the nearest point of Tihára Circle. The villages are very large, averaging 2,300 acres of total area; and the sites are at great distances from each other. This, with the uneven character of the surface and the absence of irrigation, gives the country rather a wild appearance, although there is really little more waste land than in any part of the district. In places great ridges of sand occur, but they are not common; and the soil is generally a good loam, sometimes with a considerable mixture of clay. The returns give the proportion of *bhúr* or sand to good soil as 13 : 87. There is a little irrigation in the first two villages of the circle; and there was some formerly in a village of the Sahna group, but the latter has been given up as unprofitable. Water is found at a depth of 75 to 130 feet; and is with considerable difficulty raised in the wells round the village sites which are used for drinking purposes.

Gordon Walker, S. R., §§ 284 & 285.

Of the cultivated area only 8 per cent. is held by tenants, who mostly pay in kind. Hindu Jats hold 86, and other Hindús 9 per cent. of the area. The people of the Jangal villages are a very fine race. They have little labour to do in the fields, and spend their spare time profitably in moving about and picking up what they can by trade, while a great many of them take service in the army. No part of the district has such a reputation for prosperity as this circle. The people of the more highly cultivated parts are never weary of telling one what immense profits the Jangal *zamíndárs* are making and what an abundance of land there is, and there can be no doubt that a succession of good seasons, and the great demand for the inferior grains, which are the principal staples, together with the trading habits of the people, have raised the general condition of the tract within the last ten or fifteen years much more, comparatively, than that of any other. There is every sign of prosperity

CHAP. III, C.

Land Revenue.

Ludhiána: Jangal Circle.

in the circle. The houses are large and comfortable, the cattle superior to those of any other parts, and a large proportion of the proprietors own carts or camels with which they go all over the country, disposing of their own grain or carrying for hire. It is for this purpose that such high class cattle are kept, for inferior ones would do for agriculture. Perhaps the way in which money is now spent on marriage and other celebrations is the best proof of the profits made by cultivation. It is not uncommon for a Jat of these parts to spend Rs. 500 to Rs. 1,000 on such an occasion, and cases will be found where Rs. 1,500 had been wasted in this manner by proprietors of ordinary means. Of course this is extravagance and often leads to debt, but still it betokens the presence of wealth.

The area returned as sold since the Regular Settlement is very small (about one-third per cent.). The area mortgaged is 10 per cent. of the whole area, but of the 6 per cent. is to agriculturists of the village and $2\frac{1}{2}$ to non-agriculturists, while $8\frac{1}{2}$ per cent. is mortgaged with possession of mortgagee and $1\frac{1}{2}$ per cent. without possession. The latter is all to money-lenders. It has elsewhere been remarked that land was often mortgaged where there was no real necessity, and this is the case with the greater part of the mortgages in this circle to fellow-sharers of the village. The mortgage is sometimes merely a form of tenure, the proprietor being unwilling or unable to cultivate himself, and the mortgagee paying down a lump sum for the right of cultivation, which he retains till the money is repaid. The price of the land sold averages Rs. 38 an acre, or Rs. 79 per rupee of Government revenue, but the area on which the average is calculated is small. The average per acre of mortgage money is Rs. 30 or Rs. 60 per rupee of the Government demand. These prices are, comparatively with the revenue demand, higher than in any other circle, and absolutely higher than in most. The people have been able to tide over any failures of harvest that have occurred during the currency of the Regular Settlement, and to pay their revenue punctually in the worst years. This they do from their stores of grain; for experience has taught them foresight to an extent that is not required in more favoured tracts, and in the possession of most proprietors will be found sufficient grain for at the very least a year's food. The amount stored at any time will depend on the state of the market, for the people can always wait for favourable prices; but it is never reduced below this until the next harvest is insured, which may be before it is cut. The failure of a single harvest, though it may cripple the resources of the tract temporarily, can have no permanent effect. The failure of two harvests, that is a kharif and rabi in succession, would be more severely felt. The first result would be a great loss of cattle, many either dying or being sold for next to nothing, and this is what actually happened in the droughts of 1862 and 1868. Besides suffering a great loss of cattle, many of the people would have after a time to incur debt for their own living. Since 1868 there has been a succession of good seasons, very few having been below the average; and this with high prices has not only removed the traces of previous bad years, but has raised the circle to its present state of prosperity.

The rates sanctioned for this circle and their results are shown in the margin. These rates gave an increase of about 39 per cent.; but the actual enhancement was restricted to 33 per cent. on the former *jama*, and the assessments actually announced, which amounted to Rs. 38,265, gave this proportion.

Soil.	Area.	Rates.	Resulting assessment.	Half asset estimate.
		Rs. a.	Rs.	Rs.
Irrigated ...	91	1 6	125	401
Rausli ...	52,314	0 11	35,966	47,705
Bhúr ...	6,803	0 8	3,401	4,459
Total ...	...	...	39,492	52,565

CHAP. III C.
—
Land Revenue.

Jagráon: Bet Circle.
Gordon Walker, S. R., § 288.

The Bet Circle of Jagráon contains 20 villages with a total area of 15,998 acres, of which 9,924 acres or 62 per cent. are cultivated; 4,239 or 26 per cent., barren waste; and the remaining 12 culturable or recently thrown out of cultivation. To the east, for about 6 miles, the river runs at some distance from the high bank; and between them lies a tract, 3 or 4 miles wide, similar to the Ludhiána Bet, having some land annually inundated, and the rest beyond the direct action of the river (*kachcha* or *mand* and *pakka*). From Bhundri westward the Dháia and river are only about a mile apart, and the floods reach almost right up to the former, while the villages are large, and their lands stretch from the river several miles south of the high bank. There are none of these entirely in the Bet, and a few have been thrown into the circle, although they have Dháia lands also. In the western villages there is very little *pakka* Bet land. The Budha Nála runs through the eastern part of the Circle, and joins the river a mile to the west of Bhundri. Its banks are high, and it does no harm to the land, which is cultivated right up to them.

Gordon Walker, S. R., § 290.

The landowners belong to the various tribes in the following proportions: Gújar, 39 per cent.; Rájpút, 28; Aráin, 15; other Muhammadans, 8; Hindu Jats, 7; others, 3. Of the whole cultivation 31 per cent. is by tenants and 69 by proprietors. The land under tenants is thus divided: held with rights of occupancy, 7 per cent.; cultivated by tenants who have rights of occupancy or ownership in other land, 11 per cent.; cultivated by tenants who have no such rights, 13 per cent. A large proportion of the land is in the hands of Rájpúts and Gújars; and, as in the Bet tracts of the other tahsíls, there is a good deal of debt, incurred principally from want of thrift; but there are great many well-to-do families in all three tribes—Rájpúts, Gújars, Aráins; and some of the villages are in very good condition. The land just over the high bank is the poorest in the Tahsíl; and most of the Dháia villages have also land exposed to the direct action of the river, and therefore not always to be relied on. Some have suffered a good deal by loss of land, and this is a sure cause of debt; but on the whole the circle may be said to be in a fairly good condition. The patwárís' papers show 1½ per cent. sold since Regular Settlement, and 10 per cent. (of the total area) as now held in mortgage with possession of the mortgagee. The proportion mortgaged to money-lenders is small (2 per cent. of the whole area). Nearly half of the area shown as mortgaged to agriculturists of other villages is in one single village.

Gordon Walker, S. R., § 293.

The revenue rates sanctioned for this circle and the estimated results of their application are shown in the margin. As in other Bet Circles the area to which the rates were actually applied differed from that in the Assessment Report, and the total of the village assessments announced was Rs. 11,364 (the rate *jama* being Rs. 11,314), or an increase of 5 per cent.

	Soil.	Area.	Rate.		Resulting *jama*.	Half asset estimate.
			Rs.	a.	Rs.	Rs.
Bet.	Irrigated ...	287	3	12	1,076	1,686
	Dofasli ...	2,263	2	0	4,526	5,200
	Ekfasli ...	3,586	1	4	4,483	4,170
Dháia.	*Cháhi* ...	91	3	0	273	488
	Rausli ...	259	1	0	259	318
	Bhúr ...	3,438	0	10	2,149	2,962
	Total ...	...	...		12,766	14,824

Jagráon: Lower Dháia Circle.
Gordon Walker, S. R., § 294.

The Lower Dháia of Jagráon resembles that of the other two Tahsíls. It consists in the first place of villages along the high bank, with some good Bet land, irrigated and unirrigated. Some of the villages in the western part run right down to the river and have Bet land, both inundated and beyond the reach of the floods, besides Dháia land. The circle is about 14 miles from east to west and 8 from north to south. It contains 57 villages with a total area of 71,966 acres, or 12 square miles, of which 89 per cent.

CHAP. III. C.

Land Revenue.

Jagráon: Lower Dháia Circle.

Gordon Walker, S. R., §§ 295 & 296.

is cultivation. The village sites are generally just on the ridge, and the soil for two or three miles south of them is very light and poor. The surface is uneven in places, and the sand is shifted about by the strong winds from the south east. The crops and husbandry are much the same as those described for the corresponding circles of the other Tahsíls.

The ownership is thus divided amongst the various agricultural tribes: Hindu Jats, 70; Muhammadan Rájpúts, 5; Muhammadan Gújars, 4; Muhammadan Aráins, 11; and others, 10 per cent. The Muhammadans hold the villages along the high bank and nearly all the Bet land; the Jats, those further south. The cultivation is in the following proportion: by proprietors, 79 per cent.; cultivated with rights of occupancy, 8 per cent.; cultivated by proprietors of occupancy tenants of other land, 8 per cent.; by tenants with no proprietary or occupancy rights, 5 per cent. The Circle has not many natural advantages, for the soil is mostly poor and incapable of yielding very much; but some of the Jat villages adjoining the Upper Dháia are more favourably situated, and have good irrigated and unirrigated as well as poor lands. These are the best villages in the Circle, and in them the people are very well-to-do. In a few the proprietors are able to go in for a little trade; and the village sites present an appearance of prosperity—carts, good cattle, and some elaboration of the dwellings being the principal signs. Some few Jat families have taken to money-lending. The villages adjoining the high bank are not at all well-off, both Jat or Muhammadan, and complaints are very generally made. On the whole the Circle is not in such good condition as would have justified much enhancement of the former assessment, but, on the other hand, there is nothing to show over assessment, for the demand was admittedly light. It is only of the poverty of the soil that the people complain. Of the total area of the Circle the Appendices to the Settlement Report show one per cent. as sold since Regular Settlement, and 10 per cent. as now held in mortgage. In both cases only about one-third of the land has gone into the hands of money-lenders; and most of the sales have been to members of the village community. The price realized is Rs. 40 an acre, or Rs. 39 per rupee of Government demand; and the amount secured per acre on mortgage with possession, Rs. 29, or Rs. 28 per rupee of the demand. These prices are higher than one would have expected from the nature of the soil.

Gordon Walker, S. R., 298.

	Soil.	Area.	Rate.	Resulting *jama*.	Half asset estimate.
			Rs. a.	Rs.	Rs.
Bet.	Cháhi ...	1,097	3 12	4,114	6,673
	Dofasli ...	2,125	1 10	3,453	3,579
	Ekfasli ...	2,157	1 4	2,696	2,258
Dháia.	*Niái cháhi* ...	2,814	3 8	9,849	11,260
	Khális cháhi	347	2 8	868	935
	Rauslí ...	10,189	1 2	11,463	10,067
	Bhúr ...	44,936	0 12	33,702	32,157
	Total ...	63,665	...	66,145	66,299

The revenue rates sanctioned are shown in the margin. The village assessments actually announced amounted to Rs. 67,012, or an increase of 7 per cent. on the previous demand, the *jama* by rates being Rs. 65,146. In the orders sanctioning the rates it had been indicated that, if possible, an enhancement somewhat over rates should be taken.

Jagráon: Upper Dháia Circle.

Gordon Walker, S. R., § 299.

The Upper Dháia Circle of Jagráon comprises the remaining villages of the Tahsíl, 98 in number, with an area of 175,945 acres, or 275 square miles. The Circle varies in width (east to west) from 15 to 20 miles, and is about 18 miles from north to south. The Sirhind canal runs across the whole width. Of the total area 156,424 acres, or 89 per cent., are cultivated, and 11,364 (6 per cent.) culturable or fallow, the remaining 5 per cent. being barren waste or Government property. The soil varies a good deal, being in places a stiff loam which requires a good deal of moisture. Sand drifts occur throughout the Circle, and in their neighbourhood the land is somewhat

CHAP. III. C.

Land Revenue.

Jagráon: Upper Dháia Circle.

inferior; but the prevailing soil is a good light loam (*rausli*) easily worked and very fertile. There are few villages that have not half of their land of this sort; and, even when the rainfall is short, sowing is possible in some of the land. The percentages of good and bad soils are: *rausli* and *dakhar*, 83 per cent.; *bhúr*, 17. Of the cultivated area 8 per cent is irrigated from wells. This land lies mostly in the eastern and northern villages, which are generally smaller and more populous. In the south-western villages the holdings are much larger, and irrigation is not required, while the water, too, is at a greater depth, being upwards of 50 feet from the surface at Hatur, and only about 35 in villages adjoining the Lower Dháia.

Gordon Walker, S. R., §§301 & 302.

The land is thus held by the various tribes in ownership: Hindu Jats, 72 per cent.; other Hindús, 6; Muhammadan Rájpúts, 8; Muhammadan Gújars, 6; Muhammadan Aráins, 4; others, 4. The principal *góts* of Hindu Jats are the Sidhus, Dháliwáls and Gils. The "other Hindús" are Khatrís, &c., one or two families of the shop-keeping class having acquired proprietary rights here and there before the Regular Settlement. There are also some Hindu *kamíns* (Chamárs, &c.) who have propietary rights in a few villages. The Rájpúts hold several large villages, or parts of villages (Halwára, Talwandi, &c.). The Gújars and Aráins hold land about Jagráon, one or two of the *Agwárs* or subdivisions of the land attached to the town belonging to them. There are also two or three small *Hárni* villages, and the family of Maulavi Rajab Ali own a good deal of land. Of the whole cultivation 78 per cent. is by proprietors and 22 per cent. by tenants, made up thus: cultivated with rights of occupancy, 5; cultivated without such rights, but by tenants who are proprietors or occupancy tenants, 11; by tenants without rights in any land, 6. The Hindu Jats of the circle are as a class very well off. Their villages are all fine large ones, in the hands of strong communities; but the members of these are not all equally well-to-do. Most have thriven, but a few will be found to be in difficulties, and there is a good deal of extravagance due to the influx of wealth which often results in debt The Jat proprietors have fully participated in the profits due to the great rise in price of the inferior grains; and they have developed more expensive tastes, dressing well, keeping lots of brass dishes, and their women having a great deal of jewelry. The cattle, too, are of a superior class; and most villages have a good many carts and camels that are worked for hire or take the owners' grain to Ludhiána. Large sums are spent on marriage and funeral celebrations, and old men say these expenses have increased threefold; while litigation is a luxury that most of the people indulge in, and will often be found to be the cause of debt. The famines of Sambat 1917 (A.D 1862) and Sambat 1925 (1868) have left their traces in debt, which in many cases has never been shaken off; but the Jat population may safely be said to have thriven under our rule, and to be now in a state of considerable prosperity. Where one of them has got into difficulties and has to mortgage his land, a fellow Jat will always be found able and ready to advance the money; and they could get on very well without the assistance of the money-lending classes, and do so in a great measure. Few of them are unable to dispose of their grain at the market price; and they are generally able to take it direct to Ludhiána and sell it there. Most of them retain a stock of grain which would be sufficient for two or three years' consumption, and they can tide over indifferent harvests without much loss. During the last ten years a great deal of hard cash has found its way into their hands, and few of them would now have to borrow for the payment of revenue in the worst of years. The Muhammadan villages are not so well off. Except the Raikot family, which holds a large area, the Rájpúts are all in difficulties, and that although special allowance was made for them in the Regular Settlement. The Aráins and Gújars, too, are badly off. The

CHAP. III, C.

Land Revenue.

Jagráon: Upper Dháia Circle.

returns show 3 per cent. of the whole area as sold since Regular Settlement, and 12 per cent. now held in mortgage, most of it with possession. Of the sales three-fourths are to members of the agricultural community and two-thirds of the mortgages with possession are to them. Of the area sold nearly one-third is that of one village bought at the time of Regular Settlement by the Raekot family. The average price is smaller than in the Lower Dháia, as the inclusion of the village mentioned above has lowered it. The average mortgage money per acre is Rs. 35, or 33 times the Government demand.

Gordon Walker, S. R., § 304.

Soil.	Area.	Rate.	Resulting assessment.	Half asset estimate.
		Rs. a.	Rs.	Rs.
Niái cháhi ...	8,948	3 12	33,555	37,373
Khális cháhi ...	3,073	2 8	7,682	8,456
Rausli and *dákhar* ...	119,495	1 3	1,41,900	1,52,784
Bhúr ...	24,908	0 12	18,681	20,817
Total ...	...	...	2,01,818	2,19,430

The revenue rates sanctioned for this Circle with the results are shown in the margin. The village assessments announced and reported amounted to Rs. 2,01,415, an increase of 20 per cent. on the previous demand.

General result of the Revised Assessment for the whole District.

Gordon Walker, S. R., § 305.

In the calculations of assessment all agricultural land has been included, whether liable to assessment or not, as it is a cause of great confusion to treat land as a separate class merely because it has been exempted from the payment of revenue. The revenue rates are thus applied to all cultivation; but from the results a deduction must be made on account of *muafi* or revenue free land. The marginal statement gives a comparison between the *jama* of the last year of the of old, and of the first year of the new Settlement after this deduction.

Tahsíl.	REVENUE (*Khálsa and Jágír*).			
	Former.	New.	Increase with percentage.	Rate of new assessment on cultivation.
	Rs.	Rs.	Rs.	Rs. a. p.
Samrála ...	2,61,871	3,08,586	46,715 18	2 1 5
Ludhiána ...	4,30,281	5,11,852	81,571 19	1 7 10
Jagráon ..	2,33,525	2,71,477	37,932 16	1 3 6
Total ...	9,25,677	10,91,915	1,66,238 18	1 8 5

The appointment of *zaildárs* to be paid by a deduction of one per cent. from the revenue was sanctioned over the greater part of the district, and minor deductions were also made from the full assessment on account of land under gardens and for crops injured by trees growing along the main roads. Besides this, where the period of 20 years during which land irrigated from new wells are protected from enhancement had not expired, a deduction from the full assessment for the remainder of that period was made. The *jágírdárs*, too, take a large share of the increase, and the marginal statement shows the actual immediate increase to the Government revenue.

Tahsíl.	*Khálsa* AND COMMUTATION PAID BY *jágírdárs*.		Actual increase.
	Former.	New.	
	Rs.	Rs.	Rs.
Samrála ...	2,15,564	2,48,943	33,379
Ludhiána ...	3,52,556	4,05,789	53,233
Jagráon ...	2,27,991	2,59,566	31,575
Total ...	7,96,111	9,14,298	1,18,187

CHAP. III, C.

Land Revenue.

Thus the net actual gain to Government was Rs. 1,18,187, and this will be increased by about Rs. 6,000 when the well leases have all expired. The gain to the *jágírdárs* was Rs. 25,391 immediate, and Rs. 25,974 after the expiry of the well leases, that is, the net gain to them after deduction of the commutation payable to Government and included in the above statement.

General result of the Revised Assessments for the whole district.
Gordon Walker, S. R., § 306.

Cesses.	Regular Settlement.	Settlement.
	Rs. a. p.	Rs. a. p.
Local rate ...	...	8 5 4
School ...	...	1 0 0
District post ...	...	0 8 0
Road ...	1 0 0	1 0 0
Patwári ...	3 2 0	3 2 0
Lambardár ...	5 0 0	5 0 0
Total ...	9 2 0	18 15 4

The statement in the margin shows the cesses paid at the Regular Settlement and now at the rates per cent. on the revenue. The cesses were left as they were found in 1880, except for the addition of the district post cesses, which had before been omitted.

Riverain rules.

The Sutlej used to form the northern boundary of the district, and riverain villages settled their boundaries by the deep stream rule. During the cold weather of 1903-04, however, an Assistant Commissioner was put on special duty to lay down a fixed boundary along the Sutlej, and a fruitful source of dispute and litigation has thus been removed.

Inside villages the customs vary a good deal. In some it is the rule for the co-sharers to make up the annual losses of suffering sharers from village common or from land held in severalty; and in this case new land becomes village common as a matter of course. Elsewhere the custom is that of fixed fields, according to the Settlement map, each proprietor bearing his own losses, and being entitled to land that reappears on the site of his fields, only such area as has been recovered beyond the original limits of the village becoming village common.

As to occupancy tenants there is no clearly defined rule; but their claim to recover their rights in land reappearing after diluvion is generally recognized (*a*) when they hold a *share* of the village, as they generally do; (*b*) when the rule is that of fixed fields and the proprietor from whom they hold recovers his ownership.

An account of the old riverain custom will be found in the first edition of this Gazetteer, pages 96 and 97. It is now of only an antiquarian interest as regards village boundaries.

Jágír assignments of revenue.
Gordon Walker, S. R. § 322.

Some account has already been given in Section C, Chapter I, pages 66 to 80 of the principal *jágírdárs* of the district. The Malaudh family, which alone enjoy shalf of the whole *jágír* income of the district, had established itself under the empire. The others are mostly the descendants of the petty chiefs or confederacies who, on the downfall of the Delhi empire at the close of the 18th century, partitioned the country between them, and came under our protection in 1809 as described in Chapter I, B. page 21. These chiefs and confederacies were at that time virtually independent, though it is probable that, but for our interference, they would all have been eventually absorbed by

CHAP. III, C.

Land Revenue.

Jágír assignments of revenue.

their more powerful neighbours. A few of the *jágír* families, again, have been from the first dependent, having originally had an assignment of a few villages made them by some one of the more important chiefs (*e.g.*, Kapurthala and Nábha), and being transferred to us in the annexation of 1846. From 1809 till the outbreak of the first Sikh war in 1845 we had little to do with the internal administration of the estates of the *jágírdárs*, who were allowed to govern much in their own way; but at the close of the Sutlej campaign in 1846 a great change was effected in the status of all but the seven important cis-Sutlej chiefs, who were maintained in the full enjoyment of that virtual independence which is allowed to protected States.(1) All villages not belonging to the seven accepted chiefs were incorporated in our territory along with what we had acquired by conquest and confiscation from Lahore, Nábha, &c.; but even after this we exercised but little authority within the estates of the *jágírdárs*, for we only abolished the transit duties and deprived them of their police jurisdiction in the first instance. When, however, the second Sikh war was followed by the annexation of the whole of the Punjab, their power was still further curtailed; and, finally, about 1850, it was decided to substitute for their hitherto undefined exactions from the people a fixed cash revenue demand. This last measure, when carried out, reduced all *jágírdárs* alike to the position of mere assignees of Government revenue; and it was a great blow to most of them. They had considered themselves as lords of the soil; and it does not appear that their rights over the land were at all inferior to those of the *zamíndárs* of Bengal. The *jágírdárs* had realized from the cultivators a full proprietor's share of the produce, and there was really no limit to their exactions, except the fear of driving away their villagers. To most of the families who had before been independent the *jágírs* were continued in perpetuity, unless, of course, they had compromised themselves in the Sikh war and were punished for this by confiscation. The tenures of the others were considered on annexation, and more or less favourable terms were given, some being maintained in whole or in part for the lives of the holders only; and when this course was pursued, subsequent lapses have reduced the villages to the condition of shared. In other cases the original grants were only of a portion of a village.

Commutation money paid by *jágírdárs*.

Gordon Walker, S. R., § 323.

The chiefs and confederacies had always been liable to pay tribute or furnish levies, or both, to the paramount power; and the contribution had taken the latter form on their coming under our protection. When the final change to a fixed cash assessment was introduced after 1849 it was natural that the irregular demands for which the *jágírdárs* were liable should be replaced by a certain tribute. This in most cases took the form of a contribution at the rate of so much (one to four annas) per rupee of revenue; but for some of the confederacies it was the estimated cost of maintaining a certain number of horsemen or footmen. In Ladhrán and most of the small *jágírs* the rate of commutation is two or four annas per rupee of revenue; while in Malaudh it is two annas, except in the branch of Sardár Mít Singh, in whose favour a reduction was made to one anna on account of services performed in the Mutiny. As an example of the second form of payment, and the solitary instance in the district of the *istamrari* tenure, the case of the village of Lalton may be mentioned. This is held by the descendants of a Garewál Jat, called Chaudhri Gahnda, subject to a fixed payment of Rs. 1,100 per annum, and the cost of maintaining four horsemen at Rs. 16 each per mensem, *i.e.*, Rs. 768 per annum. For the collection of the commutation money in some of the minor *jágírs*, where the shares are much subdivided, the head of the family has been appointed *sarkarda* or headman, and receives a percentage deduction from the amount which he pays into the Government treasury for the whole *jágír*.

(1) See Griffin's "Rájás," where the proclamation of the Government of India on the subject is given *in extenso*.

CHAP. III. C.

Land Revenue.

Land owned by *jágírdárs*.

Gordon Walker, S. R. § 324.

The *jágírdárs,* besides enjoying the revenues of their villages, will be found in many cases to hold in absolute ownership a considerable area of land. This is usually the *bir* or waste land reserved by the ancestors of the family for their own use as a grazing ground and for the supply of firewood, &c. These *birs* have, with the exception of one or two in the Malaudh *pargana*, been brought under the plough long ago, and are cultivated by the tenants of the *jágirdárs.* The land of absconding cultivators was also considered as belonging to the chief, and the Malaudh Sardárs acquired a considerable amount of landed property in this way just after the introduction of the cash demand of the Regular Settlement.

Statement of *jágírs.*

The following abstract statement gives details as to the *jágírs* existing in the district in 1903-04 :—

STATEMENT OF JAGIRS (ACCORDING TO KISTBANDI OF 1903-04

Number.	Tahsil.	Jágír.	Name of Jágírdár.	Number of villages. Whole. Individually.	In partnership with others.	In part.	Total. Whole.	In part.	Total.	Revenue of jágirdárs in rupees. Subject to service commutation at One anna.	Two annas.	Four annas.	Lump sum.	Not subject to service commutation.	Total.	Service commutation in rupees. At One anna.	Two annas.	Four annas.	Lump sum.	Total. Total.	To be paid to Government.	To be paid to sarkardárs.
1	SAMRALA.	Ladhrán ...	S. Mahtáb Singh, &c.,	24	...	1	24	1	25	...	24,152	...	...	...	24,152	...	3,019	...	...	3,019	3,019	...
2		Jabo Mazrá	S. Ganda Singh, &c., ...	8	...	...	8	...	8	...	10,755	...	...	...	10,755	...	1,345	...	...	1,345	1,278	67
3		Bhari ...	S. Harnám Singh, &c.,	4	...	...	4	...	4	...	7,612	...	...	...	7,612	...	951	...	...	951	930	21
4		Sontiwála ...	Bhúp Singh, &c. ...	...	...	3	...	3	3	...	5,077	...	...	...	5,077	...	635	...	...	635	602	33
5		Dhin Málána	Rám Singh, &c. ...	1	...	...	1	...	1	...	2,221	...	...	...	2,221	...	278	...	...	278	278	...
6		Khosa ...	Kishen Singh, &c. ...	1	...	...	1	...	1	...	544	...	...	...	544	...	68	...	...	68	68	...
7		Shamspur ...	Mít Singh, &c. ...	2	...	...	2	...	2	...	...	2,601	...	...	2,601	...	...	650	...	650	617	33
8		Kotla Ajmer	Rám Singh, &c. ...	...	...	4	...	4	4	...	...	...	...	2,146	2,146	...	...	...	...	...	...	...
9		Nishánawála	Amar Singh, &c. ...	...	...	4	...	4	4	...	...	...	2,354	...	2,354	...	...	...	361	361	361	...
10		Salandi (Fraternity).	Dasoundha Singh, &c.,	...	...	4	...	4	4	...	...	...	...	1,485	1,485	...	...	...	...	...	...	...
11		Bagrian ...	Bhái Arjan Singh ...	1	...	...	1	...	1	...	...	...	...	1,109	1,109	...	...	...	...	...	...	...
12		Jalewála ...	Musst. Bishen Kaur ...	...	...	1	...	1	1	...	...	...	...	267	267	...	...	...	...	...	...	...
13		*Military** ...	S. Sudh Singh, Subádár-Major.	...	...	1	...	1	1	...	...	...	...	300	300	...	...	...	...	...	...	...
		Total, Tahsíl Samrála ...		41	...	18	41	18	59	...	50,361	2,601	2,354	5,307	60,623	...	6,296	650	361	7,307	7,153	154

* See Government of India Resolution No. 867 B., dated 27th February 1903, regarding the grant of assignments of land revenue to deserving Native Officers.

STATEMENT OF JAGIRS (ACCORDING TO KISTBANDI OF 1903-04.)

No.	Tahsíl.	*Jágír.*	Name of *Jágírdár.*	Number of villages. Whole. Individually.	Whole. In partnership with other.	In part.	Total. Whole.	Total. In part.	Total. Total.	Revenue of *jágírdár* in rupees. Subject to service commutation at One anna.	Two annas.	Four annas.	Lump sum.	Not subject to service commutation.	Total.	Service commutation in rupees. At One anna.	Two annas.	Four annas.	Lump sum.	Total. Total.	To be paid to Government.	To be paid to *sarkardás.*
1	Ludhiána.	Malaudh ...	S. Badan Singh ...	30	*3	2	...	...	...	15,741	30,169	...	...	...	45,910	986	3,772	...	...	4,758	4,758	...
2		Pakhoke ...	S. Sundar Singh ...	19	*2	...	...	...	...	7,791	14,246	...	...	...	22,037	487	1,784	...	...	2,271	2,271	...
3		Ber ...	S. Balwant Singh ...	12	*5	...	...	...	...	...	18,508	...	...	...	18,508	...	2,313	...	...	2,313	2,313	...
4		Khosa ...	Gurbakhsh Singh, &c.,	1	*5	...	69	2	71	...	3,362	...	...	...	3,362	...	420	...	...	420	420	...
5		Bágrián ...	Bhái Arjan Singh ...	1	...	2	1	2	3	3,663	...	...	...	1,286	4,949	229	...	...	...	229	229	...
6		Arnauli ...	Bhái Chatar Jagat Singh.	1	...	...	1	...	1	...	1,843	...	...	...	1,843	...	230	...	...	230	230	...
7		Hans ...	Diál Singh, &c. ...	...	...	6	...	6	6	...	...	...	...	2,377	2,377	...	...	...	...	...	...	...
8		*Military* ...	S. B. Rám Singh Subádár-Major.	...	...	1	...	1	1	...	...	...	...	300	300	...	...	...	...	...	...	...
9		Miscellaneous	... ...	3	...	8	3	8	11	...	...	...	4,835	3,821	8,656	...	...	...	1,728	1,728	1,728	...
		Total	Tahsíl Ludhiána ...	67	7	19	74	19	93	27,195	68,128	...	4,835	7,784	1,07,942	1,702	8,519	...	1,728	11,949	11,949	...
1	Jagráon.	Jagráon Tahsíl	Misc. petty *jágírs* ...	2	...	8	2	8	10	...	...	...	...	4,945	4,945	...	...	...	...	...	...	...
		Total Tahsíl Jagráon	...	2	...	8	2	8	10	...	...	...	...	4,945	4,945	...	...	...	...	...	...	...
		Total of the District	...	110	7	45	117	45	162	27,195	1,18,489	2,601	7,189	18,036	1,73,510	1,702	14,815	650	2,089	19,256	19,102	154

* These number 7.
† See Government of India Resolution No. 867 B., dated 27th February 1903, regarding the grant of assignments of land revenue to deserving Native Officers.

CHAP. III, C.
Land Revenue.

The Jagráon Tahsíl was held entirely by the Rais in the first place, and after them by the Kapurthala chief, from whom we annexed it; and the *jágírs* in it are really charitable grants of whole villages or shares, there being nothing to correspond with those held by the families and confederacies of the other Tahsíl.

Talukdári dues.

A sum of Rs. 19,366 was fixed shortly after annexation as an equivalent of the services which the petty chiefs are bound to render to the paramount power, and is still levied by the *jágírdárs.* It is generally at the rate of pay 2 to 4 annas per rupee of *jágír* revenue, but sometimes at the pay of so many horse or footmen.

Muáfis. *Gordon Walker, S. R.,* § 362.

Regarding minor assignments of revenue the Settlement Officer wrote as follows: "The grants of the district were of the usual three classes—(1) in perpetuity, (2) for the maintenance of institutions, (3) during the life or lives of the grantees; but the greater part of them were of a fourth class, (4) sanctioned for the term of the Regular Settlement. With respect to (1), (2) and (3) our enquiries brought to light no discrepancies of any importance. The grants for the term of Settlement (4) were either personal, in favour of Brahmans or others of the priestly class; or they were for the support of some religious or charitable institution. Most of them were petty and unimportant, and it had clearly never been the intention that they should be enjoyed in perpetuity. The principles on which we have now dealt with them are as follows: Where the object of the grant was the support of some institution, and this was found to be maintained, continuance was recommended and sanctioned. Where the grant was a personal one, and the original grantee or his children were in possession, the same course was followed; but where the grant was personal, and was held by a number of sharers, the descendants in the third or fourth generation from the original grantee, we generally recommended resumption, or rather that the grant should be allowed to lapse. The new sanction usually continues the grant for the term of the Revised Settlement or for the life of the holder, whichever period expires first; but, in the case of the grantee dying within the period of the Settlement, the Commissioner has the power of continuance to the heirs for the remainder of this period.

The following is a statement of the number of cases and the area of the petty grants of all kinds in the district as they now stand:—

CHAP. III, C.

Land Revenue

Muáfis.

ASSIGNED REVENUE FIGURES FOR 1901-02 (INCLUDING *JAGIRS, MUAFIS* AND *INAMS*).

Name of Tahsil	Held in perpetuity without condition.		In perpetuity subject to conditions.		For life or lives.		At pleasure of Government.		During the term of Settlement.		Total.	
	Number of assignees.	Area in acres.*	Number of assignees.	Area in acres.*	Number of assignees.	Area in acres.*	Number of assignees.	Area in acres.*	Number of assignees.	Area in acres.*	Number of assignees.	Area in acres.*
Ludhiána	282	113,824	481	4,468	213	5,313	275	1,560	462	1,650	1,713	126,815
Samrála	650	37,488	320	3,726	12	62	52	800	149	472	1,183	42,548
Jagráon	618	11,894	252	1,055	42	1,174	52	334	307	1,026	1,271	15,483
Tota of District ...	1,550	143,206	1,053	9,249	267	6,549	379	2,694	918	3,148	4,167	184,846

* *i. e.*, the 'area of which the revenue is assigned for whole or in part.'

CHAP. III, D. — **Miscellaneous Revenue.**

In 1902 a special permanent *muharrir* was sanctioned to look after the registers connected with these revenue assignments.

Records-of-Rights. For canal administration and revenue see Chap. II A., pages 139 to 142. An account of the methods on which the records-of-rights were prepared and attested at the last Settlement will be found on page 261 of the Settlement Report.

Section D.—Miscellaneous Revenue.

Excise. *Table 41 of Part B.* The Excise establishment consists of a Dárogha on Rs. 56 pei mensem, a *muharrir* and 2 chaprássis, with a temporary experimental establishment of 2 *girdáwars* on Rs. 30 and 6 peons on Rs. 8 each for three months, from 1st January to 31st, March 1905. An Assistant Dárogha has also been sanctioned from 1st, April 1905.

Country liquor. The Distillery at Ludhiána was closed on 1st, April 1895, and liquor is now obtained from the Central Distilleries at Karnál, Sháhjahánpur and Amritsar. There is no special feature in the Excise administration of the district: except that being surrounded on three sides by the Native States of Máler Kotla, Nábha and Patiála, smuggling of liquor and opium into British territory was somewhat prevalent until 1900, when the Deputy Commissioner secured an agreement from these States to allow no licensed shops for liquor or opium to be opened in their territories within 3 miles of the common boundary without the assent of the District Officer, who is similarly bound with regard to the shops situated within the British border. This agreement has resulted in a considerable reduction of smuggling. In accordance with the agreement a number of shops on the southern border of the district were closed in 1900. A list of liquor-shops in each Tahsíl will be found in the supplement to Table 41 of Part B. As a rule the villages which contain liquor-shops also contain one for opium and drug, but there are a number of opium and drug shops in villages which have no liquor shops. These are—

Tahsíl Ludhiána—	*Jagráon*—	*Samrála*—
Jaspál Bángar.	Kulár.	Diwála.
Mángat.	Pona.	Panjgirain.
Mohalla Dholewál.	Akálgarh.	Malakpur.
Kúm.	Halwára.	Rúrki.
Bhaini Kúká.	Dhat.	
Mansurán.	Hathúr.	
Chappár.	Dherke.	
Sahaur.	Kamálpur.	
	Hambrán.	

For the five years, 1900-05, the opium licenses were sold with those for hemp drugs to Rám Pershád Beri of Jagráon, together with those of the Ferozepore District. The licenses for 1905-06 are to be sold each shop separately, but for the vend of opium and drugs together. Those for liquor are sold separately and mostly bought by Jats, Kaláls or Muhammadans.

CHAP. III, E.

Local and Municipal.

From 1st April 1905 the district is to be divided into two tracts, (1) an urban (Ludhiána town alone being so classed) and (2) the rural area, the latter including all places in which Sikh or Hindu Jats predominate. In the rural area the contracts will be leased at a fixed fee of 6 pies a gallon to the contractors of 1904, on condition that they sell pure proof liquor at Rs. 6 per gallon. All the liquor-shops within a radius of 5 miles of Ludhiána are to be closed, and those on the roads within a radius of 11 or 12 miles are to be transferred to places off the road.

Liquor other than country spirit.

There is only one shop for the vend of foreign liquor, which is situated in the Chaura Bázár in Ludhiána town. The license fee for this shop for the year 1903-4 was Rs. 1,232.

Opium.

Cultivation of the poppy is prohibited in this district. Opium is imported from Málwa, Ambála, Simla and Sháhpur.

Drugs.

Hemp is not grown in this district and *charas* is imported from the Hoshiárpur and Amritsar Districts. In 41 of the 70 shops for the vend of hemp drugs the sale of *charas* is to be prohibited from the 1st April 1905, and only *bhang* will be allowed to be sold.

Income Tax. *Tables 42 and 43 of Part B.*

Under the old system assessees with incomes below Rs. 1,000 always predominated largely, forming nearly 75 per cent of the total number, and only one assessee in fifteen was assessed on an income above Rs. 2,000. From 1890-1 to 1901-2 the assessments showed a steady increase, and the demand rose from Rs. 27,379 to Rs. 45,480, and as finally fixed was realised with very little difficulty. Warrants only averaged 30 to 40 annually, while distraint sales never exceeded 4 or 5. Money-lenders, grain-dealers and speculators are the principal assessees—persons whose incomes must from the nature of things vary considerably from year to year. The exemption of incomes below Rs. 1,000 reduced the number of assessees from 1,862 in 1902-3 to 698 in 1903-4 and the annual revenue from Rs. 43,231 to Rs. 28,676. To a certain extent the Land Alienation Act is said to have affected the incomes of money-lenders.

Arms licenses.

Arms licenses are sparingly issued in this district, and their number is being gradually reduced. In 1895 there was a large reduction from 332 to 254. In 1897, however, they rose again to 309, but have steadily decreased since then. In 1903 there were 227, 11 of these being for swords.

Section E.—Local and Municipal.

District Board Funds. *Table 45 of Part B.*

The District Board, which is under the *ex-officio* Chairmanship of the Deputy Commissioner, should consist of 117 members, 25 nominated by Government, 53 elected to the Local Boards with the right of also sitting on the District Board, and 39 co-opted by these original members. In point of fact this number has never been reached, and in 1903-4 the Board consisted of 7

CHAP III. E.

Local and Municipal.

District Board Funds.

ex-officio, 11 nominated and 22 elected members. Business is largely transacted through the Local Boards which submit proposals concerning their respective Tahsíls to the larger body. There is also a standing Finance Sub-Committee of the District Board, which consists of 7 members.

(1) DISTRICT BOARD—
Deputy Commissioner.
Civil Surgeon.
Tahsíldárs, Ludhiána, Jagráon, and Samrála. } Punjab Govt. Notn. No. 100, dated 12th May 1899.
District Inspector of Schools.
Sub-Divisional Officer, Public Works Department. } Punjab Govt. Notn. No. 34, dated 3rd February 1903.
(2) *a.* LOCAL BOARD, Ludhiána—
*Tahsíldár of Ludhiána,
District Inspector of Schools.
b. LOCAL BOARD, Samrála—
Tahsíldár, Samrála,
c. LOCAL BOARD, Jagráon—
Tahsíldár, Jagráon. } Punjab Govt. Notn. No. 99, dated 12th May 1902.

The *ex-officio* members of the District and Local Boards are shown in the margin.

The public works undertaken by the Board are considerable, and included, during the five years ending 1902-3, metalled roads from Kohára to Sahnewál (2½ miles), from Jagráon to Bassián (12 miles), and from Samrála to Khanna (10 miles), besides new buildings for a Technical School and District Board School in Ludhiána, and new godown in the amalgamated office of the District Board and Municipality of Ludhiána, a Veterinary Hospital at Ludhiána, stallion stables at Samrála and a Boarding House for the Samrála School. A new bridge at Máchiwára is in contemplation while, if funds allow, a metalled road will be built between Raikot, Pakhowál and Dehlon. For the Board's contracts with the Public Works Department see below Section F.

The income of the Board for 1903-4 was Rs. 1,34,400, excluding the opening balance of Rs. 46,051, of which Rs. 92,400 were derived from the Local Rate. A large proportion of this income is ear-marked to various heads of expenditure. Education took Rs. 24,708, deducting fees, which works out to 17¼ per cent. of the Board's income, but these figures exclude expenditure on school buildings, and Medical Establishment 5¼ per cent. while 11·7 per cent. was paid to the Public Works Department towards the upkeep of the metalled roads in the district. The pay of the Veterinary Assistant (Rs. 1,200 per annum) and the District Dak Cess are other fixed items of expenditure. When it is remembered that the balance in hand is not allowed to fall below 10 per cent. of the annual income, it will be obvious that the amount left to be spent as the Board thinks best is comparatively small. The District Board leases from Government the 12 ferries listed on p. 160 above, paying an annual contribution of Rs. 3,500, and realising about Rs. 5,000 a year from the ferry-dues.

Municipalities.

Besides Ludhiána town there are four municipal towns in the district. These are, in the order of population, Jagráon, Raikot, Máchhiwára and Khanna. Each of these has a committee of six elected and three nominated members. An account of each municipality will be found in Chapter IV under the town concerned.

Section F.—Public Works.

The district is in the Jullundur Division of the Buildings and Roads Branch, P. W. D. An account of the distribution of the roads of the district between the P. W. D. and the District Board has been given in Chapter II, Section G, and of the dam at Aligarh in Chapter II, Section A (Irrigation). The only work of first rate importance in the district is the Ludhiána open drainage system. Commenced in 1890, this work was handed over to the Municipal Committee of the town in 1892, but the scheme has not yet been completed and additions are made to it as funds permit. The water-supply scheme for the town has hung fire for several years. A drainage scheme for Jagráon town has also been prepared.

District Board public works.

	Miles.
Samrála-Khanna	10*
Ludhiána-Kohára	10
Sahnewál-Kohára	2½
Jagráon-Raikot	13¾
Kup-Malaudh	4
Chakkar-Jamálpur	2
Bágrian	2

The District Board pays to Government in the Public Works Department a sum of Rs. 15,723 annually for the maintenance of its metalled roads, other than those noted in the margin which it maintains by its own agency. On the other hand, the Board maintains most of the Government buildings in the district on the terms laid down in Punjab Government Notification No. 1879, dated 20th August 1904.

Section G.—Army.

The only regiment which can be said to be historically connected with the district is the 15th (Ludhiána) Sikh Infantry, but it is not by any means exclusively or even mainly recruited from this district.

The following regiments obtain recruits from the district:—

2nd Lancers (Gardner's Horse); 13th Duke of Connaught's Lancers.

Bombay Regiments :—

32nd Lancers, formerly the 2nd Bombay Lancers.
33rd Queen's Own Light Cavalry (old 3rd Bombay L. C.).
36th Jacob's Horse (old 6th Bombay Cavalry).
37th Lancers (Baluch Horse), (old 7th Bombay Lancers).

Hyderabad Contingent Regiments :—

25th Deccan Horse (old 1st Lancers).
29th (old 2nd) Lancers (Deccan Horse).
3rd Lancers.
30th (old 4th) Lancers (Gordon's Horse).

Mountain Batteries :—

27th (Gujrát), 28th (Lahore), 24th (Hazára), 25th (Quetta), 26th Jacob's (Jullundur) and 22nd (Deraját).

* Now completed.

CHAP. III, H.
Police and Jails.

Also the following :—

1st (old Bengal) Sappers and Miners; 5th Light Infantry (formerly the 5th Bengal L. I.); 12th Pioneers (Khalat-i-Ghilzai Regiment), old 12th B. I.; 14th Ferozepore Sikhs (old 14th Sikh Infy.); 15th Ludhiána Sikhs (old 15th Sikh Infy.); 17th Infantry (The Loyal Regiment) (old 17th Musalmán Rájpút Infy.); 18th Infantry (old 18th Musalmán Rájpút I.); 25th, 29th, and 31st Punjábís (old P. I.); 32nd Sikh Pioneers (old 32nd Pb. Pioneers); 33rd Punjabis (old 33rd P. I.); 34th Sikh Pioneers (old 34th Pb. Pioneers); 35th (old 35th Sikh Infy.); 36th, 45th Rattray's Sikhs (old 45th Sikh I.) and 47th Sikhs (old 47th Sikh I.); The Queen's Own Corps of Guides.

Also the following regiments of the old Punjab Frontier force :—

51st (F. F.), old 1st Sikh Infantry; 53rd (F. F.), old 3rd Sikh I.; and 54th Sikhs (F. F.), old 4th Sikh I.; 56th Infantry (F. F.), old 2nd P. I.; 58th Vaughan's Rifles (F. F.), old 5th P. I., and 59th Scinde Rifles (F. F.), old 6th P. I.

Madras Regiments :—

62nd (old 2nd Madras Infantry); 66th (old 6th M. I.); 67th (old 7th M. I.); 72nd (old 12th Burma Infantry); 84th (old 24th M. I.); 87th (old 29th B. I.); 93rd (old 33rd B. I.); 92nd (old 32nd B. I.); 90th (old 30th B. I.); 91st Punjábís (old 31st B. I.)

Also the Bhopal Battalion; Hong Kong Artillery and Military Police; some Burma Military Police Battalions and Mule Cadres.

Recruits are obtained from the following castes :—

(*a*). Sikh Jats of the Garewál, Gill, Sidhu, Dháliwál, Dhillon, Sekhon, Bhander, Chíma, Sindhu, Mán, Mángat, Ráthi and Gondher *gôts* or tribes.

(*b*). Rámdási and Mazhabi Sikhs.

(*c*). Punjábi Musalmáns of the following groups :— Shaikhs (Qoraishi and Siddiqi), Patháns (Lodi and Ghori), Mughals, Bukhári Sayyids, Aráíns, Awáns, Rájpúts (Bhatti, Chauhán and Náru).

The Garewál Jat Sikhs of Raipur, Gújarwál and Narangwál in Ludhiána Tahsíl enlist especially in Native Cavalry regiments in India; and the Punjab Musalmán Rájpúts in the 1st Bengal Lancers, 5th Bengal Infantry, 12th (Kelat-i-Ghilzai) Bengal Infantry and 17th and 18th Musalmán Rájpút Infantry.

There appear to be no prejudices against recruiting, and recruiting officers obtain as many recruits as they want without any difficulty.

Section H.—Police and Jails.

Strength of Police. *Table 47 of Part B.*

The Police Force, which is of the strength marginally noted, is controlled by a District Superintendent of Police, who has under him an Inspector and 15 Deputy Inspectors. The district lies in

CHAP. III. H.

Police and Jails.

Working of Police. *Table 48 of Part B.*

the Eastern Circle under the Deputy Inspector-General at Lahore, and is divided into 11 *thánás*, 8 of the 1st class, *viz.*, Ludhiána, Jagráon, Raikot, Dehlon, Sahnewál, Khanna, Máchiwára and Ludhiána city, and 3 of the 2nd class, *viz.*, Shehna, Dákha and Samrála. Jagráon is the largest, most unwieldy and most populous *thána* in the district. Jagráon, Dákha and Raikot are the only Police stations whose areas lie in two Tahsíls, *viz.*, Ludhiána and Jagráon.

Class of Police.	Total strength.	Distribution.	
		Standing guards.	Protection and detection.
District Imperial ...	391	29	362
Municipal ...	117	...	117
Total ...	508	29	479

The Police duties of Ludhiána town are performed by the regular force: Jagráon has a Municipal Police force of one 1st, one 2nd and two 3rd grade Sergeants and 40 constables: and Khanna a mixed force of Police and town watchmen, consisting of a 3rd grade Sergeant and a constable, with 10 watchmen.

In all the other towns and in the villages there are *chaukidárs*, one or more according to the number of the population: while in some cases two or three small villages form a single charge. The *chaukidárs*, who number 999, are paid in the villages Rs. 36 per annum, which is collected by a rate on the houses, and disbursed by the Tahsíldárs. In the towns (except Bahlolpur) they get Rs. 4 a month, the *jamadárs* receiving Rs. 6, and are paid from Municipal Funds.

The principal crimes of the district are burglaries and thefts, both of property and cattle. Dakaities sometimes occur, but are more frequent on the main roads than in private houses.

The following stations have a cattle-pound attached to them: Dákha, Jagráon, Raikot, Shehna, Dehlon, Khanna, Sahnewál and Máchhiwára.

Police posts.

There are 15 Police posts at intervals along the Ferozepore road, all those on the Ambála and Samrála roads having been removed. All are patrolled by three constables, two from sunset to midnight and one from midnight to morning. A 1st class outpost is also maintained at Bhaini Ala in Samrála Tahsíl, and Hárni guards at Bodalwála, Tappar, Kirri and Bir, all near Jagráon, and Burj Lambra in Ludhiána *thána*.

1. Ludhiána Paráo.
2. Chauki Awal.
3. Sunet.
4. Baddowál.
5. Karímpura.
6. Panohar.
7. Dháka.
8. Pindori.
9. Mor Karíma.
10. Mán.
11. Sidhwán.
12. Aligarh.
13. Paráo Jagráon.
14. Kalerán.
15. Ghálib.

Trackers are not employed, as cattle-lifting is not a normal crime of the district, but the Baurias would probably make good trackers.

CHAP. III. H.

Police and Jails.

There are three camel *sowárs*, but no ferry police, though the creation of such a force is advisable along the Sutlej after the model of Ferozepore.

Polic posts.

The special difficulties of the force are the marked absence of co-operation on the part of the *zaildárs* and *lambardárs*.

The classes principally enlisted in the Police are Sheikhs, Rájpúts and Jats.

Criminal tribes.

There are three criminal tribes in the district, *viz.*, the Hárnis who number 913, the Sánsís (340) and the Baurias (113). The Hárnis are settled chiefly in five villages in the Jagráon *thána*, *viz.*, Tappar, Kirri, Bodalwála, Bír and Mirpur, and in one village in the Sadr Police Station, *viz.*, Burj Lambra. There are, however, representatives of the tribe in other villages in the district. The Sánsis are found chiefly in villages near Khanna and Samrála, while the Baurias reside in some 20 villages scattered throughout the district. The Hárnis are by far the most criminal and are addicted to *dakaiti* and other serious crime. The Sánsis come next. The following statement shows the numbers of the criminal tribes convicted during the last ten years:—

TRIBE.	Section 379	457	394	395	302	Miscellaneous.	Total.
Hárni	31	20	...	4	...	690	745
Sánsi	118	22	...	...	..	238	378
Bauria	16	...	4	...	...	42	62

The location of Police posts has not had much effect, as the Hárnis are willing to pay well for non-interference. If these posts were removed and midnight raids instituted better results might follow. Severe sentences have no effect on these tribes.

Hárnis.

The Hárnis pretend to be Rájpút emigrants from Rájpútána, but it is not improbable that in reality they are a section of the Sánsi tribe converted to Muhammadanism. They were nomads in the time of Rái Kalap, the chief of Raikot, who employed them for the purpose of harassing his enemies by frequent and sudden nocturnal raids on their camps, which enabled the Hárnis to carry off horses and other transport cattle. They are addicted to every species of crime against property, and enjoy the unenviable reputation of being the most criminal class in the Punjab.

Sánsis.

The Sánsis have an evil name for burglary and petty pilfering. In this district, unlike other parts of India, the Sánsis are not nomads but have fixed abodes in villages, and most of them keep up the genealogies of the Jat *zamíndárs*. A very interesting account of the customs and habits of the Sánsis is given by Colonel Sleeman in his report on "Badhuks *alias* Bágree dacoits and other

gang robbers by hereditary profession" submitted in 1849 to the Government of India.

CHAP. III-H.

Police and Jails.

Baurias.

At one time the Bauria class was a source of great annoyance to travellers and cultivators in the district. Their chief occupation was dacoity, burglary and stealing grain and crops. Those who were unable to abandon their criminal avocations have sought other fields for their occupation by emigration, whilst those who are still in the district, beyond petty pilfering, are not troublesome.

The Gonemárs are now no longer proclaimed under the Act. The Sánsis and Gonemárs were settled by Rájá Fateh Singh of Kapúrthala in six small villages of Jagráon and Ludhiána where they own the land; and the others have now fixed residences in a few villages; but it is evident that all four tribes were originally gipsies, foreign to the country, and that for generations they wandered about committing petty thefts, begging, and living as they could. It appears impossible to break them of their habits. Where confined to villages, they are a pest to their neighbours, and the crops adjoining their lands require constant watching. They are very poor cultivators themselves. The Hárnis possess a slang, of which the following words are specimens :—

Nakhar, 'theft,' *Bhasri lagána*, 'to commit burglary,' *Khara*, 'any Government official,' *Kutba*, 'a constable or stranger,' *Katera*, 'a Jat,' *Poh*, 'to bury,' *Cnetra*, 'rupees,' *Tilkin*, 'shoes,' *Dhotin*, 'a woman,' *Táke*, 'clothes,' and *Khaot*, 'a lock.'

Dogars and Gújars are specially addicted to burglary and cattle-lifting.

Members of the Siálkot *Pakhiwáras* have lately been found in the towns of Jagráon, Ludhiána and Máchhiwára. Statistics are being prepared regarding Dogars and Pakhiwáras with a view to their inclusion among the criminal tribes.

Jails. *Table 49 of Part B.*

The District Jail at headquarters is capable of holding 325 prisoners and is used for short-sentence convicts. The health of the jail is good. The death-rate in 1903 was only 10·03 *per mille* in the jail as against 53·15 outside it. No case of plague has occurred in it, and a quarantine camp is maintained where every prisoner spends a fortnight before he is admitted to the jail. The jail industries present no unusual features. Country paper is made and supplied to the local Courts, and lithographed forms are also printed for local use. Oil-pressing is carried on in country mills. Mustard-seed is used for pressing and the oil is sold to other jails for prison diet. Country cloth, blankets and mats are made for the use of prisoners and the mats, which are made of *munj*, are sometimes sold in the open market. The profit of jail-industries amounted in 1903 to Rs. 3,692, or Rs. 17-1 per head. The cost of keeping the prisoner was Rs. 57 per head.

CHAP. III. I.
Education and Literacy.

Section I.—Education and Literacy.

Literacy. *Table 50 of Part B.*

The literacy of the people of Ludhiána is above the average—a fact which must be attributed largely to the exertions of the Presbyterian Mission. The advance in this direction during the 20 years 1881—1901 was remarkable. In 1881 the proportion of literates *per mille* was 48 among males and 1 among females. In 1901 it was 83 among males and 4 among females. Of the small community of Native Christians nearly half can read and write. Next come Jains with 315 *per mille*, then Hindus with 63, Sikhs with 53, and lastly Muhammadans with 20.

Education. *Tables 51 and 52 of Part B.*

The script in common use is the Lande, in which the ordinary *bania* keeps his accounts. In the towns well-to-do merchants use the improved Lande known as the Ashráfi. Some Hindu Jats use Gurmukhi, and Brahmans use Nágri for religious purposes. The Persian character is little used. Advertisements and sign-boards in English are quite common in Ludhiána town. The number of indigenous schools in the district has decreased *pari passu* with the growth of the Government schools. The remarks made by Mr. Gordon Walker in the Settlement Report still hold good. He says:—

Gordon Walker S. R, § .

"Indigenous schools in Muhammadan villages are under the charge of a *mulláh* or priest, who gives instruction in the Korán to a class of 8 or 10 pupils seated in the village mosque or *takia*. The school is called a *maktab*. The boys merely learn by rote from the master two or three chapters; but to this is sometimes added a little writing on slate, and portions of some easy Urdu book (the "Karima," "Khálikbári," &c.); and it is only in this case perhaps that the institution can rightly be called a school. The *mulláh*, who is also the village priest, has generally a small piece of land given him, or receives an allowance of grain, and also presents at odd times. Lande is taught to boys of the shopkeeping class in the villages by a *páda* or master.

"The boys learn to write on a slate, there being of course no books, as the character is purely commercial. Fees are paid by the parents, Re. 1 when a boy enters, another rupee when he can write the letters, and so on. Gurmukhi is taught in the *dharmsálas* by the *sádh*, who is probably in possession of an endowment, and also receive presents from the parents. The instruction here too is by slates, the boy first learning to form the letters and to write from dictation. An advanced boy will sometimes begin to read the *Granth* or Sikh Scriptures, but the use of books has not yet been introduced. These schools are, it will be seen, of the most elementary character."

Private Schools. Public Schools.

There were 86 private and 16 aided indigenous schools in the district in 1904. A technical Anglo-Vernacular School was opened at Ludhiána in 1896 and promises to do well. There are 13 Middle Schools in the district at the places noted in the margin. Gujarwál has a Middle School for girls as well as one for boys.

Jagraon.	Baddowál.	Shelna.
Raikot.	Raipur.	Sawaddi.
Khanna.	Gujarwál (2).	Samrála.
Machhiwára.	Malaudh.	Sahnáwál.

The following list gives the places where the primary and zamíndári schools are located:—

Serial No.	Locality.
	PRIMARY (BOYS). *District Board Schools.*
1	*Lalton.*
2	*Dakha.*
3	*Pakhowál.*
4	*Qila Hans.*
5	*Jassowál.*
6	*Kum Kalán.*
7	*Kot Gangu Rai.*
8	*Paddi.*
9	*Jaspál Banger.*
10	*Gill.*
11	*Dhálkot.*
12	*Pohir.*
13	*Butahri.*
14	*Narangwál.*
15	*Mansúran.*
16	*Bhutna.*
17	*Kaisar.*
18	*Jamálpur.*
19	*Latála.*
20	*Bholapur.*
21	*Andlu.*
22	*Dehlon.*
23	*Rámgarh.*
24	*Bagrian.*
25	*Hiran.*
26	*Sahauli.*
27	*Hambran.*
28	*Hattúr.*
29	*Talwandi Rái.*
30	*Halwaru.*
31	*Mullah.*
32	*Kaonki.*
33	*Tihára.*
34	*Raqba.*
35	*Hans (Jagraon).*
36	*Bassián.*
37	*Sidhwan Bet.*
38	*Nasrali.*
39	*Kheri.*
40	*Sarwarpur.*
41	*Salundi.*
42	*Jodhwál.*
43	*Bhari.*
44	*Bhadla.*
45	*Ladhrán.*
46	*Bahlolpur.*
47	*Kolalo.*
48	*Dahrrú.*
49	*Ikolaha.*
	ZAMINDARI (BOYS). *District Board Schools.*
1	Chaoki.
2	Jandiáli.
3	*Chima.*
4	*Rahuwan.*
5	*Karpálon.*
6	*Sihála.*
7	*Rumi.*
8	*Fatehpur.*
9	*Mohi.*
	PRIMARY (GIRLS). *Municipal Board Schools.*
(a.)	
1-5	Ludhiána 5
6-7	Jagráon 2
8-9	Raikot 2
10	Khanna 1
	PRIMARY.
1	Raipur.
2	Narangwál.
3	Rámgarh.
4	Tihára.
5	Andlu.
6	Bassián.
	NEW PRIMARY SCHOOLS TO BE MAINTAINED BY PROVINCIAL REVENUE BUT TO BE MANAGED BY DISTRICT BOARDS.
	Boys' Schools.
1	Baliawál.
2	Manki.
3	Mattewára.
4	Thrike.
5	Mullanpur.
6	Shanker.
7	Kulahar.
8	Nathowál.
9	Akhara.
10	Sadhar.
11	Sidhwan Kalán.
12	Galib Kalán.
13	Poawat.
14	Panjgiráín.
15	Nagra.
16	Dhiromazra.
17	Isrú.
18	Maunpur.
19	Lalori Kalán.
	Girls' Schools.
1	Baddowál.
2	Sanehwál.
3	Lalton.
4	Máchhiwára.
5	Sidhwan Bet.

NOTE.—Schools containing Branch Post Offices are shown in *italics*.

CHAP. III. I.

Education and Literacy.

Female Education.

In the indigenous schools the girls generally receive instruction along with the boys, more or less of their own age, in *maktabs* of all sorts, but respectable Muhammadans, who observe *pardah*, do not allow their girls to attend. In their case the *mulláh* goes to the parents' house to teach the Korán, *Nimáz*, Pakki Roti, &c., or, as long as the girl is a minor she goes to the *mulláh's* house, where she receives similar instruction from his wife or some other woman of the house. Women do not as a rule attend the *maktab* or go to the *mulláh's* house. They receive instruction of a similar kind from educated members of their own family if any such there be. It may, however, be noticed that Missionary ladies, both native and European, go about in the towns and villages, and offer to teach a little reading, writing and arithmetic to women of respectable households, and the people frequently accept their friendly help.

The North India Female Medical School has been mentioned above (p. 95). It has a staff of teachers capable of preparing lady students to become hospital assistants, compounders, midwives and nurses. There were 43 students in attendance in 1904. It is hoped that the Medical School ere long may be able to do full duty as a Medical College for women.

There are one Middle and 16 Primary Schools for girls. At Ludhiána there is a Government High School and two native Middle Schools, the Arya and the Islámia, and two Mission High Schools.

Ludhiána High School.

The Government High School was started as a private vernacular seminary in 1864, at the instance, and with the aid of, certain leading members of the Hindu and Muhammadan comunities of Ludhiána, who felt it a desideratum, since there was no institution where secular education could be obtained, and many objected to send their children to the Mission School, where religious instruction was (as it now is) compulsory. This private seminary in 1865 became a Government grant-in-aid school, and was created a purely Government High Vernacular School in 1870. In 1875 English was introduced in it, which wrought a thorough change in its character, that is from a high vernacular school it was transformed into a High District School like those of Delhi, Lahore, Amritsar, &c., with a vernacular department attached A drawing class was also added. The school house, which was built in 1882, was soon found to be too small for the school, and additional accommodation had to be rented until 1893, when four new class-rooms were built. Two more class-rooms were built in 1903. The school has a boarding-house attached to it, and a new one has now (1904) been built. The Municipal Committee has borne the cost of all these additions. The strength of the school was in 1904: High Department 92, Middle 73, Special Classes 66 and Primary 168—total 399. The average strength during the five years, 1899-1904, has been 381. There are 76 boarders—49 Hindús and 17 Muhammadans and 10 Sikhs. The staff consists of a headmaster with 18

CHAP. III. I.
—
Education and Literacy.

assistants, of whom 10 are English speaking. The school is well spoken of by the Government Inspector, and is making steady progress despite the keen competition of the other High Schools in the city.

Ludhiána High School.

The City High School for boys was established by the Mission in 1834 and several branches have since been opened in the city. The number of scholars at present (1904) is 332, including 112 in the Primary Department. The staff consists of 15 teachers who, with the exception of the Principal, devote themselves entirely to scholastic work.

Christian Boys' Boarding School.

A Christian Boys' Boarding School, established at Lahore in 1875, was transferred to Ludhiána in 1877. It was suspended in 1880 but re-opened in 1883. Extensive buildings have been erected at a cost of Rs. 40,000. The number of boarders at present is 93, of whom 47 are in the Primary Department.

The establishment of a Christian Boys' Boarding School at Allahabad has drawn off the boys who used to come to Ludhiána from the United Provinces. In the last two years, however, the number in the High Department has increased from 38 to 46. The annual cost of the City School is about Rs. 10,000 and that of the Boarding School about Rs. 12,000. The City School pays its way with the help of the Government grant. The Boarding School costs the Mission some Rs. 7,000 annually. The Mission supports two girls' schools in the city—one for Hindús and one for Muhammadans—and also two summer schools at Jagráon and Morinda (in Ambála District) for low-caste girls. There is also a Christian summer training-school at Khanna, where a few young men are trained for evangelical work.

Expenditure on Mission Schools Education.

The expenditure on education in this district cannot be estimated with accuracy owing to the combined educational, medical and evangelical work done by the Mission. District Funds, however, spent Rs. 28,700 in 1903-4 and Municipal Funds Rs. 32,600. Government grants came to Rs. 3,300.

The district forms part of the Jullundur Circle.

Printing.

Since the time when a Mission Press was set up in the Danish Settlement of Serámpore and became important, both in its commercial and educational results, the printing press has been a favourite instrument in the hands of Christian Missionaries. The Ludhiána Mission printing and book-binding establishment turns out work of unusual excellence and finish. The vernacular type and Roman-Urdu books printed here, as well as the book-binding, received high commendation at the Punjab Exhibition of 1881-82. The Ludhiána Mission Press does not advertise largely like the Methodist Episcopal Press of Lucknow, and has not produced so popular a book as the cheap Roman-Urdu Dictionary of that

CHAP. III. J.
Medical.

establishment, which is sold extensively in the Punjab, confining itself apparently to work of a more strictly religious character; but it takes a high place for good workmanship and neatness.

Printing Presses.

The Ludhiána Mission Press has already been described in Chapter I.

The *Civil and Military News* Press was established by Khwája Ghulám Mohi-ud-dín in 1892. The special work of this Press is printing and publishing Drill and Regulation books for the Native Army in India and abroad. It is patronized by the Military Department of the Government of India, which purchases large quantities of the books, &c., printed in Urdu, Hindi, and Gurmukhi by this Press. It also publishes a newspaper in Urdu, called the *Civil and Military News*, which has a weekly circulation of about 1,300 copies.

The Narankári Press is a lithographic press, which does job work in vernacular, and is owned by Rikhi Rám. It is now closed for want of work.

The Hathkári Press is also a lithographic press, which does job work in Urdu. It was established in 1899. Since June 1903 it has published two weekly newspapers, called the *Public* and *Fauji Akhbár*. The weekly circulation of the former is 200 and of the latter 60 copies. Proprietor: Nathu Lál.

The Ahmedi Press now prints nothing.

The Kaiser-i-Hind Press is a lithographic press and has published a vernacular journal in Urdu, called the *Khádam-i-Tijjár*, since 1900.

The Haqqáni Press is a lithographic press. It publishes a monthly religious pamphlet in Urdu, called the *Núran -ala-Núr*. Circulation about 100 copies. Proprietor: Maulvi Núr Muhammad.

The Army News Press, opened in June last, publishes a vernacular newspaper in Urdu, called the *Army News*. Subscribers about 300.

Section J.—Medical.

Hospitals & Dispensaries. *Table 53 of Part B.*

The Civil Surgeon has under him a well-appointed Civil Hospital at headquarters with a dispensary, and a branch dispensary in the city which was opened in 1899. There are seven outlying dispensaries at Jagráon, Máchhiwára, Raikot, Khanna, Dehlon and Malaudh. A travelling dispensary was given up in 1899, and the Kohára dispensary, built with that at Dehlon in 1897-98, closed in April 1903, an indoor ward being added to the Dehlon dispensary in its stead. The dispensary at Malaudh was built in 1904-05 at the cost of Sirdár Badan Singh, C.I.E., the expenditure being close on Rs. 4,000. The Sirdár has also munificently endowed it with a sum of Rs. 20,000.

CHAP. III, J.

Medical.

Civil Hospital and Branch Dispensary at Ludhiána.

The Civil Hospital which was founded in 1853 is situated to the south-east of the city near the Jail. It has 40 beds, 25 in the male ward and 15 in the female. During the five years 1898-1902, a yearly average of 888 in-patients were treated. The opening of a branch dispensary in the city has greatly relieved the pressure on the Sadr dispensary. In 1898, before the branch was opened, nearly 50,000 out-patients were treated at the Sadr. In 1902 less than 19,000 came to the Sadr while 27,000 were treated at the City Branch.

Taking the District as whole for the five years 1898—1902 we find that the yearly average of in-patients treated is 1,225, out-patients 102,643, and operations performed 4,615.

Income.

The income of the medical institutions of the District comes to some Rs. 15,000 (1) annually. Municipal Funds contributing practically $\frac{2}{3}$ and District Board Funds $\frac{1}{3}$. Subscriptions and other sources of income bring in only Rs. 750.

Expenditure.

The annual expenditure is kept within the amount received. Salaries account for half the expenditure and repairs to buildings, &c., for a quarter. Medicines, diet and other expenses make up the rest.

Charlotte Hospital.

The Charlotte Hospital and the dispensary of the Ludhiána Zenána and Medical Mission are superintended by qualified lady doctors. The dispensary was opened in May 1881 and the Hospital in February 1889. There are two Branch Dispensaries, one in the village of Gill, 5 miles from Ludhiána, the other in Phillaur on the other side of the Sutlej.

The Charlotte Hospital consists of one large ward and two small ones—total 80 beds—and an operating room. There are quarters for the matron and nurses. The total expenditure in the year 1902 (exclusive of missionaries' salaries) was Rs. 7,047-4-3.

There is also a Medical School for Christian women and a Jubilee Memorial Hospital in connection with it, which provides clinical teaching. This hospital was opened in 1899 and contains 70 beds. Since its foundation the number of patients both in-door and out-door has increased yearly.

The hospital is not complete as yet but additional land has been purchased and new buildings are contemplated. A building grant has also been applied for from the Government. In 1902 the figures were :—

In-patients	658
Out-patients	16,800
Operations	362

(1) Figures taken from report of 1901.

CHAP. III. J.

Medical.

Charlotte Hospital.

The total number of patients treated during the year ending November 1902 is as follows:—

Charlotte Hospital and plague camps ...	650	in-patients.
Do. do. Dispensary ...	13,088	out-patients.
Gill Dispensary	2,115	,,

Giving a total of 15,853 exclusive of the Phillaur dispensary where 881 out-patients were treated during the year.

All classes of women attend the dispensaries, and though the bulk of the hospital patients come from the poorer classes, quite a large number of *purdah* women and high caste Hindús avail themselves of its help. Some of the women come from long distances and even from the neighbouring Native States.

During the winter season of 1901-02 plague camps were opened in Gill, Bulara and Ludhiána.

The hospital is supported chiefly by voluntary subscriptions and partly by a grant from the Municipal Funds of Rs. 40 a month and Rs. 200 a year from the District Fund.

Vaccination.

The Vaccination Act is not in force in any of the towns of this District.

Cost of Department.

The expenditure of the Vaccination Staff in 1902-03, including salaries, came to Rs. 2,566. During the five years ending 1900 an average of 28 *per mille* was successfully vaccinated yearly. In 1902 the total number of operations performed was 17,358, of which 15,419 were primary operations. The people are comparatively willing to submit their children to primary vaccination, but rarely consent to its repetition.

The Vaccination Staff is only employed on vaccination from October to April. In the hot weather they are employed in looking after rural sanitation, and in cholera work should such arise.

"Village sanitation in this District" writes the Civil Surgeon in 1904, "is in a very primitive state and is likely to remain so for a long time to come. The low standard or comfort with which even the better classes are satisfied, is a bar to any improvement in this respect."

The sale of quinine in villages realised Rs. 2-5-6 during the year 1902-03. When this figure is compared with the number of deaths from fever which occurred in that year it will be seen to what extent the people are prepared to avail themselves of European medicines when these are brought to their door.

CHAPTER IV.—PLACES OF INTEREST.

BAHLOLPUR.

CHAP IV. — Places of interest. — Bahlolpur.

Bahlolpur is situated in Samrála Tahsíl, on the ridge over the Budha *nála*, 7 miles east of Máchhiwára and 27 from Ludhiána. It was founded in the reign of the emperor Akbar by Bahlol Khán and Bahádur Khán, Afgháns (Khánzáda), whose descendants still reside and own land in the village area attached to the town, but have sunk into obscurity. It is now a place of no importance and has all the appearances of decay, though, when there was a brisk trade on the river which it overlooked, the town must have been flourishing. Its population, 3,369 in 1868, had fallen to 2,418 in 1891 and 2,194 in 1901. And the Deputy Commissioner wrote in 1881:—"The steady decay of the place may be attributed to two causes—the first is that during the Sikh rule a number of Patháns of Bahlolpur served in the Rájwárs, and brought wealth and plunder to the place; but since our rule these men have given up service and have been living on their savings; the second the health of this town is very bad on account of the large *jhíl* formed by the Budha *nála* close under its walls. The municipality was abolished in 1884. The trade, principally in sugar (*khand*), is insignificant. A good many resident money-lenders in the town (Khatrís and Baniás) have dealings with the people of the Bét. The town is very unhealthy, like Máchhiwára, from its situation. There are a number of old tombs, relics of its former prosperity, in and about the town. These include the *maqbara* of Husain Khán, a brick tomb built in the time of Akbar and still in fair order; the *maqbara* of Nawáb Bahádur Khán, son of Husain Khán, 100 yards north of his tomb: the *maqbara* of Aláwál Khán, Suba of the Dekkan, built in the time of Sháh Jahán, situated south-east of and close to the town: the tomb of Dáud Khán, Resáldár, built in the time of Sháh Jahán, now in utter ruin, and used for storing produce: the mosque and *maqbara* of Kamál-ud-dín Khán, built in the time of Sháh Jahán and in perfect order: the *khángah* of Abd-ur-Rahmán Khán and Sháh Jamál, a brick tomb, built about 7 years ago: the bungalow of Námdár Khánwálá, built in the time of Sháh Jahán, by Námdár Khán, and in perfect order: the *masjid* Bilwánwáli, a brick mosque, built by Kámdár Khán in the time of Sháh Jahán, in good order and in the possession of Fateh Khán.

HATUR.

Hatur.

Hatur, or Arhatpur, is a village 34 miles south-west of Ludhiána. Here Mahávíra is said to have performed *chár-mansa*, or a four months' recess in the time of Kanakh-Khetu Rájá. It was then called Aichata Nagri (see 14th and 15th chapters of the Dharmkhata). General Cunningham says that Arhatpur was certainly Badhaur, but Arhatpur is doubtless named from Mahávíra, the Jaina Tirthankar or Arhat. Old coins and remains

CHAP. IV. — Places of interest.

are found. See Ch. I. B., p. 14 above, where Arura is identified with the ancient Ahichetti.

Hatur.

Hatur also possesses a *maqbara* of Rai Firozwála, near the village, which the people say was built in the time of Humáyún. The heirs of Firoz, still living in the villages, are in possession of the buildings. Other old buildings are the Azmat Khánwáli *masjid*, a brick mosque said to have been built by Azmat Khán in the time of Sháh Jahán, but now disused: the Nikka-Malwála *math*, partly in ruins, and known to have been built in the time of Humáyún: the *idgáh*, one mile north-west of the village, a very old building built of brick: the Barkhurdár Khánwáli *masjid*, a brick mosque of the time of Akbar: and the *masjid* of Rai Jali Khánwáli, a ruined brick mosque in the village, said to be 300 years old.

JAGRAON TAHSIL.

Jagráon Tahsíl.

Tahsíl of the Ludhiána District, Punjab, lying on the south bank of the Sutlej between 30° 35′ and 30° 59′ N. and 75° 22′ and 75° 47′ E., with an area of 417 square miles. It is bounded on the east and south by Patiála and Kotla States. Its population was 184,765 in 1901 as against 166,252 in 1891. It contains the towns of Jagráon (18,760), the tahsil head-quarters, and Raikot (10,131) and 169 villages, and the land revenue, including cesses, amounted in 1902-03 to Rs. 3,19,959. The battlefield of Aliwál is in this tahsil.

JAGRAON TOWN.

Jagráon Town.

Jagráon, a municipal town and the head-quarters of the Tahsíl of that name, lies 24 miles west of Ludhiána, on the Ludhiána-Ferozepore metalled road and about 1½ miles south of it. It is the second town in importance in the District, and had in 1901 a population of 18,760 souls (9,776 males and 8,984 females), but most of the people live in the suburbs, called *agwárs*, which are really ordinary villages, each with a large area of land attached to it, and inhabited by the same classes as other villages. In the town proper the houses are nearly all of masonry, and many of those belonging to the mercantile community are very fine buildings, several storeys high. Owing to the flatness of the surrounding country the town can be seen from a great distance on all sides, and has a very imposing appearance. The streets are fairly straight and wide for a native town, and are well paved. The situation is most healthy, being well removed from the river; and the climate, though very hot at times, is dry and salubrious. The town is of no antiquity. It is said that more than 200 years ago under Rai Kalha, a Muhammadan *faqír* called Lape Sháh, took up his abode on the site of the present town, and prophesied that a city would be built there, the streets of which he marked out as they now run. Rai Kalha called in cultivators from all parts, Gújars, Aráíns and Jats, and assigned them lands round the site according to the number of each tribe; he also settled a mercantile community, whose dwellings he enclosed with a wall, while the agricultural population settled down each tribe on a site in their own land outside the town. The outlying sites were

CHAP. IV.
Places of interest.
Jagráon Town.

enclosed with the usual hedges (*wár*), whence the designation of the suburbs, from *ág* (forward or outer) and *wár*. The town was named after a Rájpút Jigra, who exerted himself in promoting its growth and who was probably the Rai's representative. The small tomb of Lape Sháh stands in the centre of the town and every Thursday there is a *mela* or celebration in his honour, in which Hindús and Muhammadans alike take part. About two miles north of Jagráon, on the west of the Sidhwán road, is a mound of some dimensions called Solah, marking the site of an old village on which the *agwárs* and adjacent villages of Sherpur, &c., are said to have arisen. It was here that in 1802 A.D. the young Rai Alias met his death in the hunting field. Under the *ránis* who succeeded him, Ahmad Gújar, the *thánadár*, or local representative of the family, tried to assert his independence, but was expelled with the assistance of Patiála. As related elsewhere, in 1806-8 Mahárája Ranjít Singh stripped the *ránis* of their possessions; and the country about Jagráon passed into the hands of the Ahlúwália (Kapúrthala) chief, under whom the town became the head-quarters of the *iláqa* or territory and the mud fort of the Rais was improved. The town came into our possession with the rest of the country in 1846, and the fort was demolished; but the town walls still remain.

Trade and manufactures.

The town has a very considerable trade, being situated at the head of the great grain-producing Jangal tract. There is a large colony of the mercantile class, mostly Khatrís of the Beri, Lumba, Maria and Jaidke *gôts*, who have money-lending dealings with the villagers about; and a great deal of grain finds its way into the *bázár* in small amounts when the cultivator has not enough to make a journey to Ludhiána worth while. These driblets collect in the granaries of the trading classes, and are kept till they can be disposed of at a profit. The town was once famous for its large granaries; but great losses occurred in consequence of the contents of these rotting, and the grain is now stored in small flat-roofed rooms. Merchants from Ludhiána buy on the spot from the local traders, or the latter bring the grain to Ludhiána. The opening of the new line of railway to Ferozepore, with a station at Jagráon, will probably divert much of the grain trade from Ludhiána. There is a very large sale of brass and copper dishes, and of cloth in the *bázár*; and it may be said that the whole country for 30 or 40 miles to the south and west is supplied from here, the Jats coming from long distances to purchase. The chief transactions are in clothes of the better sort, such as are used on marriage and other festive occasions, gold embroidery, &c. The main street (*chauk*) is generally thronged with buyers particularly at the wedding season (May-June); and it is not uncommon for a well-to-do Jat to spend Rs. 200 or 300 in hard cash in a purchase of clothes. There are 15 or 20 shops of *thathiárs*, or workers in brass, where the usual dishes are made from the sheets of the metals; and there is also all import of ready-made goods of this

CHAP. IV. Places of interest. Jagráon Town.

class from Delhi, Jagádhri, &c., for sale at the ordinary shops. The brass dishes made at Jagráon are famous throughout the country, and fetch high prices. It has also a considerable trade in iron and a few workers in ivory or bone, who make bangles, small boxes, &c. The bangles are used at every Hindu marriage. There are also considerable dealings in gold of which a great deal is purchased by Jats for bangles and other ornaments. The *ashráfs* of Jagráon have a great reputation for selling the metal pure.

Public institutions.

The Tahsíl buildings are on the Ferozepore road, with encamping ground and *sarái*, about a mile from the town, but connected with it by a good metalled road. The buildings include a room for European officers. The Police station is inside the town, in the building where the representative of the Ahlúwália chief used to reside. The town has an Anglo-Vernacular Middle School, and two girls' schools, Hindu and Muhammadan, supported from municipal funds. There is also a 2nd class dispensary maintained from the same source. The family of Maulavi Rajab Ali have some fine houses, and also a garden with tombs and a mosque in it adjoining them. The Berís, Lumbas, &c., have also some substantial edifices; and Devi Chand Beri has erected for the accommodation of travellers a large *sarái* at great expense just outside the principal gate, that towards Ludhiána. The old wall of the town is in good repair, and there are two large *pakka* tanks outside. Besides the rest-house in the Tahsíl there is a Public Works Department rest-house on the Ludhiána-Ferozepore road and a Canal rest-house at Akhara; both are about 2 miles from the town. All these are furnished.

The administrative officers include a Tahsíldár, a Náib-Tahsíldár, a Deputy Inspector of Police and a sub-registrar. Two horse and two donkey stallions are kept by the District Board in the Tahsíl.

Jagráon is a second class municipality with a committee of 9 members, consisting of 1 *ex-officio*, 2 nominated and 6 elected members. (Punjab Govt. Notn. No. 687, dated 28th Sept. 1886). The average municipal income for the 10 years ending 1902-03 was Rs. 18,208, and the average expenditure Rs. 92,565. The chief items of income and expenditure for 1902-03 were as follows:—

Income.	Rs.	Expenditure.	Rs.
Octroi	13,651	Administration	4,798
Municipal property and powers .	3,644	Public safety	1,785
Grants and contributions... ...	853	Public health and convenience ...	6,428
Others	7,868	Contributions	125
		Public instruction	3,848
		Others	542
Total	26,016	Total	17,526

The municipal boundaries were fixed by Punjab Govt. Notn. Nos. 683, dated 28th Sept. 1886, and 713, dated 24th Sept. 1888. Its rules of business will be found in the *Punjab Gazette* for March 1887, p. 284 of

Part III and Notn. No. 43, dated 3rd Aug. 1898. (Ml. Manual, pp. 357-8). Octroi limits were defined by Punjab Govt. Notn. No. 479, dated 1st July 1890, and the schedule, prescribed by Notn. No. 822, dated 5th July 1876, was revised in 1897 (Notn. No. 581, dated 4th Decr. as corrected by Nos. 301, dated 1st July 1899, and 253, dated 16th June 1900). Building bye-laws will be found in the *Punjab Gazette* for Jan. 1888, p. 70 of Part III; and penal bye-laws were sanctioned by Notn. No. 371, dated 3rd June 1890. In the case of latter the model rules were adopted. (Ml. Manual, pp. 450-1).

KHANNA.

Khanna.

Khanna is a small municipal town in Tahsíl Samrála on the North-Western Railway, 26 miles south-east of Ludhiána. The population increased from 3,408 in 1868 to 3,988 in 1881 (17 per cent.), but in 1901 had fallen to 3,838 (2,016 males and 1,822 females). It has no particular history, but in Sikh times was the seat of one of the petty chiefs among whom the country was divided. The last representative of the race was Mái Daián Kaur, on whose death in 1850 the large *jágír* of the family lapsed. The family had a masonry fort, mostly demolished now, but of which portions still remain. Since the opening of the railway in 1870 Khanna has increased in importance, and there is a rising trade in grain and cotton (exports); salt, iron, &c. (imports). The railway station is a good one, and large consignments of grain come up from Nábha and other territories to the south. There is at present no good road to the south, and most of the trade comes on camels, donkeys, &c. The town is very healthy; and has good clean *bázárs*, very wide for a native town. The houses are unpretentious, being mostly of one storey, and many of sun-dried bricks only; and there is not much actual wealth in the place as yet. A large portion of the population is agricultural. There is a Police station outside the town at the encamping ground, and a Vernacular Middle School. The only objects of interest are the ruins of the old fort, and of an imperial *sarái* built in the time of Aurangzeb, in which a part of the town is built; also a *baoli* of brick, dry and in ruins, built by Mái Daián Kaur, now in possession of Government, but not looked after.

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Khanna is a second class municipality with a committee of 9 members, 1 *ex-officio*, 2 nominated and 6 elected. (Punjab Govt. Notn. No. 687, dated 28th Sept. 1886). The average municipal income for the 10 years ending 1902-3 was Rs. 6,404, and the average expenditure Rs. 6,131. The chief items of income and expenditure in 1902-3 were as follows:—

Income.	Rs.	Expenditure.	Rs.
Octroi	3,955	Administration	1,069
Municipal property and powers...	831	Public safety	752
Grants and contributions... ...	876	Public health and convenience ...	3 187
Others	119	Public instruction	1,663
		Others	7
Total	5,781	Total	6,678

CHAP. IV.

Places of interest.

The municipal boundaries were fixed by Punjab Govt. Notn. No. 683, dated 28th Sept. 1886. Its rules of business will be found in the *Punjab Gazette* for March 1887, p. 284 of Part III, and No. 43, dated 3rd Aug. 1898. (Ml. Manual, pages 357-8). Octroi limits were defined by Punjab Govt. Notn. No. 479, dated 1st July 1890, and the schedule was prescribed in Notn. No. 822, dated 5th July 1876. Building bye-laws were sanctioned in *Punjab Gazette*, Part III, p. 70, dated 26th Jan. 1888; and penal bye-laws by Notn. No. 371, dated 3rd June 1890. In the case of the latter the model rules were adopted. (Ml. Manual, pp. 450-1).

LUDHIANA TAHSIL.

Ludhiana Tahsíl.

Tahsil of the Ludhiána District, Punjab, lying on the south bank of the Sutlej between 30° 34′ and 31° 1′ N. and 75° 36′ and 76° 9′ E., with an area of 633 square miles. Its population was 333,337 in 1901 as against 323,700 in 1891. The town of Ludhiána is the tahsil head-quarters. It contains 432 villages, and the land revenue, including cesses, amounted in 1902-03 to Rs. 5,18,122.

LUDHIANA TOWN.

Ludhiána Town: position.

Ludhiána, the principal town and the head-quarters of the District, is situated on the ridge just over the Budha *nála*, or former bed of the Sutlej, about 6 miles from the present course; and lies on the North-Western Railway, and the Grand Trunk Road (Delhi to Lahore), 116 miles from Lahore. It is also connected with Ferozepore by a metalled road 72 miles in length. Population in 1901 was 40,649 souls (26,829 males and 21,820 females). Of these 488 were enumerated in civil lines.

History under native rule.

The town was founded in the time of the Lodi emperors, on the site of a village called Mirhota, the date recorded being 898 Hijri (A. D. 1481). The founders were Yúsaf Khán and Nihang Khán Lodis, or perhaps the latter alone; and there is no reason to doubt the generally accepted account that Ludhiána is a corruption of *Lodiána*. The situation selected was a slight eminence on the south bank of the Sutlej, commanding the passage of the river, on the high road from Central Asia to India. The history of the town is in a great measure that of the District, and will be found in Sec. B of Chap. I. Under the Lodis it was the seat of government for this part of the empire, and a large fort was built on the site of the present one by Jalál Khán, grandson of Nihang Khán. The Mughals fixed the head-quarters of the *sarkár*, or division of the province (*suba*) at Sirhind, and Ludhiána was only a *mahál*(1) or district; but it did not lose its importance; and, to judge from what are said to have been the boundaries of the Lodis' city, it must have had a population of 5,000 or 6,000. Neither did it suffer from the Duráni invasions, although, as already noticed, Nádir Sháh is said to have ordered a general massacre of the people. On the downfall of the Mughal empire it passed quietly into the hands of the Rais about the year 1760; and under them enjoyed the same measure of prosperity as before. Rai Kalha

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(1) *Mahál* corresponded to our Tahsil better than to any other subdivision.

CHAP. IV — Places Interest. Ludhiána Town.

improved the fort, and it was one of the *thánas* under the rule of this family. Mahárája Ranjít Singh took it with the rest of the country from Ráni Bhág Bhari in 1806, and gave it to his uncle, Rája Bhág Singh of Jínd. When Sir D. Ochterlony advanced to the Sutlej in 1809, land was allotted to us for a cantonment to the west of the town; but we held nothing else till 1835,[2] when, on the death of Rájá Sangat Singh, the town and country about became our own possessions (See Chap. I. B., pp. 15 to 22, for details of the above sketch).

History under our rule.

When the town was transferred to us it appears to have occupied the space between the fort and ridge over the lowlands (which latter was the boundary on two sides), and the present Chaura Bázár up to the Sabzimandi, and on from that the Hazúri Sark. The present Municipal Hall and the tomb of Pír Roshan[3] are situated outside the old limits on the west; but to the east of this the houses covered the whole of the unoccupied space between the fort and the present town. No record can be found of the estimated population of that time. The old imperial road entered the town on the eastern side, where the houses of the American Mission settlement now stand; and the residency was also on this side while the cantonments lay to the west, the present civil station being the remnants of them. Under Sir Claude Wade (1823-38) and his successors the town increased in size and importance, spreading out to the southwards. It became the centre of a very extensive trade in grain, sugar, cloth, &c., which found its way down the Sutlej in boats from Phillaur. There had always been a small colony of Kashmíri weavers in the town, but in 1833 A.D. a famine in Kashmír drove numbers of this class all over the country, and some 1,500 to 2,000 of them were settled in this town, and started in trade by the exertions of Sir C. Wade. In 1842, on our withdrawal from Cábul, the family of the Amír Shuja-ul-Mulk, with a numerous body of adherents and attendants, came with us; and Ludhiána, then a frontier station, was fixed on as their residence. They at first took up their abode on the west side of the city; but soon after shifted to the south side, where the land on which their houses and gardens now stand was assigned to them. When after the Sutlej campaign the Ludhiána District was formed, the civil offices were removed to the cantonment side of the town, and in 1854-5 the Grand Trunk Road was metalled and realigned to its present position. In 1854 the cantonments were abandoned, a small force being retained as a garrison of the fort; but this change does not appear to have much affected the town, which, with the improved communications, was becoming more important every year as a centre of trade. The events of the Mutiny have been related in Chap. I, Sec. B., pp. 25-19. The

(2) Although the town was not nominally ours till 1835, the Political Agents appear to have exercised paramount influence in it from the first, and many of the improvements effected in it date from before 1835.

(3) "Pir Abdul Qádir Jaláni" (see para. 64 of the Settlement Report by T. Gordon Walker).

CHAP. IV. Places of Interest. Ludhiána Town.

houses of the town at that time came to within a short distance of the fort, and, when the garrison mutinied, it was found to be in communication with the town-people just outside it—Súfis, Súds, Gújars, &c. Mr. Ricketts, on the departure of the mutineers, ordered the demolition of all the houses within a radius of 200 or 300 yards of the fort, the inhabitants settling down where they could. The Gújars were removed to their lands below the town; the Súfis took up their abode in the vicinity of the Cantonment Bázár, where they now live; and the Súds and others spread themselves over the town. The opening of the railway from Delhi to Lahore in 1870 gave a great stimulus to its trade and a number of shops and *saráis* were built along the Grand Trunk Road, facing the station.

General description of the town.

The town is situated in an angle of the ridge or high bank, which to the east of it runs due north and south and then turns westward, forming the boundary on two sides. The houses are mostly built of masonry. In the old part, the limits of which have been described above, they rise storey over storey, and are crowded together, while the streets and lanes are narrow and tortuous. But the new town to the south of the Chaura Bázár bears all the marks of being modern. The streets are wide and straight, and the houses and shops mostly of one pattern. The principal streets, the Chaura Bázár and the Hazúri Sark, were designed by Sir C. Wade himself; and one of his projects, the Iqbál Ganj, is a standing proof that he was rather too sanguine about the speedy development of the town for which he did so much. His successors, Assistant Agents and Deputy Commissioners, have each added something—*e.g.*, the *Murray Ganj* (Captain Murray), *Ghalla Mandi*, or grain market (Captain Larkins), and the *Kaisar Ganj*. In the old parts of the town, such as the Naúgarah square, the houses are many storeys high, but in the new town they are generally, as yet, of only one, though some of the people along the Chaura Bázár have added a second. The old town was divided into *mahallas* according to tribes (Súds, Súfis, Sayyids, &c.); but these have mostly been lost sight of. Attached o the town is a large area, owned principally by Sayyids, Gújars and Aráíns, most of whom reside within the town limits or in the old military bázár, and this land is divided into eight *tarafs*.

From the situation of the town over the lowlands and the swamps along the Budha *nála* one would expect malarious fever to prevail after the rains, and in some years, such as 1878, there has been a tremendous loss of life from this cause, the half-starved Kashmíris and others of the lower classes not having sufficient stamina to resist the attacks of the disease. Between 6 and 7 per cent. of the whole population died from fever alone in that year (1878), and the death-rate, which had averaged 33 in the preceding five years, rose to 111. But at other times the town cannot be said to be unhealthy, the sanitary arrangements are good for a

CHAP. IV.

Places of Interest.

Ludhiana Town.

Indian town, and the system of drainage appears to be now efficient. Inspection reports since 1878 speak well of Ludhiána, which was before considered to be very backward in this respect. The supply of drinking water is from wells inside the town, the quality being apparently very bad on analysis; but it is said that it has evil effects only on new comers. The average death-rate does not compare unfavourably with that of most Punjab towns.

Public buildings and institutions.

The principal educational institutions are the Municipal High School, the Primary School, the Mission School, and a Hindu Aided School. There are only two regular printing presses, one belonging to the American Mission Society, which publishes a weekly journal called *Núr Afshán*, and the Dharm Saháik Press maintained in connection with the Hindu School above mentioned. The principal public buildings and offices are the Municipal Hall, the Post Office, Dâk Bungalow, Kotwáli or Police Station, Tahsíl and Telegraph offices, which all lie near the entrance of the Chaura Bázár, just outside the town to the west, and the Railway station. Across the railway line, which separates it from the town, at a distance of about a quarter of a mile, is the District office or *Kacheri*, while beyond this lie the church, the cemetery, and the few houses of the European district staff. To the north of the town the fort is situated on a point of the ridge overlooking the lowlands. It is a square structure with a high mud wall and a deep ditch, the inside measuring about 100 yards each way; and it owes its present form to Sir D. Ochterlony, who made use of the bricks found in the neighbouring ruins of Sunet for building it. The principal streets of the town are the Chaura Bázár, which runs east and west the whole length of the town, the Bazázán, Pansári, Lucha and Lakar Bázárs, Wade Ganj, Hazúri Sark; and the squares or market-places are the Ghalla Mandi, Kaisar Ganj, and others belonging to private persons. It is in these last squares and market-places that most of the dealings in the grain trade inside the town go on. There is always a great deal of business in the Chaura Bázár, where cloth, shoes, &c., are hawked about; and of an afternoon it is crowded with people along the whole length. There are two or three *saráis* along the Grand Trunk Road, facing the Railway station, in which grain is stored, those of Ali Muhammad of Jhajjar, Kanahia Lál, &c. Outside the town to the south lie the houses and gardens of Sháhzáda and the other refugees; and beside them are the Jail and Dispensary, while the Mission Settlement is situated further on at the south-east corner.

Objects of interest.

The principal places of interest have been mentioned in the preceding paragraph. To the west of the Railway and behind the district offices is a *rakh*, or plantation, under the District Board. This is traversed by roads in all directions lined with ornamental gardening. The *rakh* is a great place of resort as a drive for the Europeans and rich natives; but all classes of the town and country people frequent it. The old cantonment has completely disappeared,

CHAP. IV. — Places of Interest. Ludhiana Town.

except such houses as have been kept for the European residents, and a few offices close to the town, and the church and cemetery. The marks of the compounds are visible in places, but most of the land occupied by the old lines is now under cultivation. There are few antiquities in or around the town. The tomb of Pír Abdul Qádir Jaláni has already been referred to. This is in the open space to the south of the fort. There is also an old tomb in the Saiad's *mahalla* of one of their ancestors (Saiad Ali *Fíl Mast*), to which is attached a grant of land, and several Hindu temples (Shiválás and Thákardawáras) of recent date. The mound of Sunet lies about three miles west of the town.

Ludhiána is a second class municipality with a committee of 24 members, consisting of the Deputy Commissioner, Civil Surgeon and 3 *ex-officio*, 5 nominated and 16 elected. (Pb. Govt. Notn. No. 687, dated 28th Sept. 1886).

The average municipal income for the ten years ending 1902-3 was Rs. 92,831 and the average expenditure Rs. 92,565. The chief items of income and expenditure for 1902-3 were as follows:—

Income.	Rs.	Expenditure.	Rs.
Octroi	72,779	Administration	15,010
Shops and stalls at annual fairs Taxes	319	Public safety	14,553
		Public health and convenience ...	44,155
Municipal property and powers ..	14,130	Public instruction	21,118
Grants and contributions ...	7,745	Contributions	1,800
Others	3,223	Others	6,878
Total	98,196	Total	1,03,514

The municipal boundaries were fixed by Punjab Govt. Notns. No. 683, dated 28th Sept. 1886 No. 713, dated 24th Sept. 1888, and No. 96, dated 24th Febr. 1902 (extending Section E). Its rules of business will be found in the *Punjab Gazette* for 10th March 1887, p. 284 of Part III; also Notns. No. 43, dated 3rd Aug. 1898 and No. 21, dated 3rd Aug. 1899. (Ml. Manual, pp. 357-8). Octroi limits were defined by Punjab Govt. Notn. No. 479, dated 1st July 1890, and the schedule, prescribed by Notn. No. 822, dated 5th July 1876, was revised in 1887 and 1899 (Notns. No. 110, dated 11th March 1887 and No. 330, dated 5th July 1899). Building bye-laws were sanctioned by *Punjab Gazette*, Part III, p. 70, dated 26th Jany. 1888; and penal bye-laws by Notn. No. 370, dated 3rd June 1890. In the case of the latter the model rules were adopted (Ml. Manual, pp. 450-51).

In and about the town lie a few old Muhammadan remains: these are the Shaikhonwáli *masjid* and tomb, near the fort. The mosque, which has two minarets and three domes, was built in the time of Aurangzeb: the *khángah* of Sulimán Sháh Chishti, a square domeless tomb, probably never finished: the *khángah* of Saiyid Ali Sarmast, two tombs and a mosque in an enclosure. One tomb is octagonal and underneath is a *tahkhánah*. The second tomb, according to an inscription, was built in 978 H., 1570 A. D. The first tomb was probably built in the time of the Tughlaqs: the *khángah* of Sháh Qutb, west of the road to Phillaur, known to

have been standing for the last 600 years. The walls of the enclosure and the pavement are evidently of bricks from Sunet: the *khángah* of Saiyid Ali Buzarg, a brick tomb, said to have been built 300 years ago. CHAP. IV. Places of Interest.

MÁCHHIWÁRA.

Máchhiwára. The municipal town of Máchhiwára (in Tahsíl Samrála) lies on the ridge over the Budha *Nála*, 20 miles east of Ludhiána, on the old Rupar Road. A metalled road connects it with Samrála, the Tahsíl headquarters, whence there is also a metalled road to Ludhiána; and although the distance is 26 miles, all traffic goes round this way.

The town had in 1901 a population of 5,588 souls (3,027 males and 2,561 females), of which a large portion is agricultural, the village area being 4,800 acres. Máchhiwára may have existed in Hindu times, as a place of the name is mentioned in the Mahabhárat; but it is doubtful if it can claim greater antiquity than that allowed by the account that it was founded 800 years ago under the Ghorian dynasty, like Ludhiána, on the south bank of the Sutlej. The name means "the place of fishers," and is common all along the river. It was under the Ghori dynasty that the Rájpúts first settled in this part of the country. The town has a considerable trade in sugar, the *ráb* of the Bét coming into it for manufacture into *khand* or *búra* (a coarse brown sugar). Some account of this trade will be found in the Note on Sugar appended to the Settlement Report, and Mr. Gordon Walker estimated the annual value of the exports of sugar and syrup at 1 to 1½ lakhs of rupees. There is a considerable commercial element, composed of Khatrís, Baniás, and Súds, engaged in money-lending business with the villagers about, principally with the Muhammadans of the Bét. The sugar trade is mostly carried on by the Khatrís, who combine it with money-lending, taking payment in *ráb*, which they refine into *khand*, &c. The streets are good, well paved, and clean. The public institutions are a Police Station, a Dispensary and an Anglo-Vernacular Middle School. As in Ludhiána there is a terrible amount of sickness in the autumn, and for two months most of the inhabitants suffer from fever. Under the Sikhs it was the headquarters of the Sodhís; and they have left a large brick fort, now partly occupied by the Police Station and a Diwánkhána or Court.

Near the town are a few old buildings which include the Sujan Sháhwáli *masjid* built in the time of Muhammad Sháh by the ancestors of Saiyid Qásim Ali; the mosque of Mihr Ali Sháh or Qázi *masjid* of stone, built in the time of Sikandar Lodi, 923 H., 1517 A. D., by the lady Fath Malik, and still in use: the Ganj-i-Sháhídán or place of martyrs, west of the town, probably the tomb of those who fell in the battle of Máchhiwára in 1555 A. D.: the Diwáli

CHAP. IV.
Places of Interest.
Máchhiwára.

Deví, *Bhadr Káli*, a brick temple, a mile west of the town, built 90 years ago. About a mile west of the town are the remains of an old mosque which was built of blocks of *kankar*. Round about it are many ruined graves, and the ground is covered with remains of buildings. Many of the bricks are of large dimensions, showing great age. The people point to a well which contains a now plain stone, which they say once bore an inscription that the man who sank it had previously sunk 360 wells in Máchhiwára. There are some five wells to the west of the town in the sand, all built of large bricks. Hence it may be inferred that the town formerly extended towards the west. Gurudwára, a brick Sikh temple built 100 years ago by Sodhi Karm Singh, to commemorate a visit of Gurú Gobind Singh to this place. It is in the possession of a resident Akáli. The palace of the Sodhís of Máchhiwára, now an utter ruin, is close to the Police rest-house at the west end of the town.

Máchhiwára is a second class municipality with a committee of 9 members, 1 *ex-officio*, 2 nominated and 6 elected (Punjab Govt. Notn. No. 687, dated 28th Sept. 1886). The average municipal income for the ten years ending 1902-3 was Rs. 4,928 and the average expenditure Rs. 4,922. The chief items of income and expenditure for 1902-3 were as follows:—

Income.	Rs.	Expenditure.	Rs.
Octroi	3,030	Administration	868
Municipal property and powers...	601	Public safety	765
Grants and contributions... ...	570	Public health and convenience ...	3,074
Others	1,069	Public instruction	951
		Others	31
Total	5,270	Total	5,689

Malaudh.

The muincipal boundaries were fixed by Punjab Govt. Notn. No. 683, dated 28th Sept. 1886. Its rules of business will be found in the *Punjab Gazette* for 10th March 1887, p. 284 of Part III, and Notn. No. 43, dated 3rd Augt. 1898. (Ml. Manual, pp. 357-8). Octroi limits were defined by Punjab Govt. Notn. No, 479, dated 1st July 1890, and the schedule, prescribed by Notn. No. 1106 S., dated 26th Augt. 1885, was revised in 1887 (Notn. No. 201, dated 29th April). Building bye-laws will be found in the *Punjab Gazette* for Jan. 1888, p. 70 of Part III, and penal bye-laws were sanctioned by Notn. No. 371, dated 3rd June 1890. In the case of the latter the model rules were adopted. (Ml. Manual, pp. 450-1).

MALAUDH.

Malaudh, the residence of one of the branches of the family of the Malaudh Sardárs, which derives its name from the place, has a small trading community and a good *bázár*. Population (1901) 1,915.

MEGHAN.

Meghan.

Meghán, 4 miles south of Khanna, contains a grove of trees and a tomb. The grove is held in high esteem by the natives, who

CHAP. IV. — Places of Interest.

will not cut down a tree. The tomb has been in existence for over 100 years. Other groves lie 6 miles north of Khanna and 5 miles west of that town.

PIR MUBARAK.

Pir Mubárak.

Pir Mubárak, 8 miles south of Khanna, a grove of trees and a brick tomb.

RAHAWAN.

Rahawan.

Rahawan contains a *masjid* of brick, built by the ancestors of the headmen of the place in the time of Sháh Jahán.

RAIKOT.

Raikot.

The municipal town of Raikot is situated in the Jagráon Tahsíl, 24 miles by the direct road south-west of Ludhiána, with which it is connected by the metalled road to Dháka on the Ludhiána-Ferozepore road. Its distance from Ludhiána by this road is 27 miles. Raikot had in 1901 a population of 10,131 souls (5,185 males and 4,946 females); but is not a place of very great importance. Of the population about one-half is agricultural, as there is a very large village area (nearly 8,000 acres) attached to it. This land was cultivated from of old, being divided between six villages; but 230 years ago (so says the family history) Rai Ahmad, moving from Talwandi, the former seat of the family, made the place the head quarters of his territory, and called it Raikot. The scattered villages were collected into one town, and a trading community assembled. The followers of the Rais would of themselves have been a large addition to the population of any place, as they must always have maintained a large army. Raikot declined in importance on the overthrow of the Rais; but there is still a certain amount of local trade carried on by the Khatri, Bhábra, &c., residents. This is principally in grain from the villages to the south, the agriculturists taking in return clothes, brass dishes, salt, &c. The population remained stationary; and there are no signs that the place is developing, although the situation should give it the command of the trade from the Jangal, which at present goes straight through to Ludhiána. A good road towards Sahna would probably make some difference. The town has, like Jagráon, an Anglo-Vernacular Middle School, a Police Station, and a third class dispensary. The town is surrounded by a brick wall, ruinous in parts. The principal places of interest are the palaces of Rais, now in the possession of Imám Bakhsh, the adopted son of the last *ráni* who resides here. These buildings are mostly dilapidated.

Raikot is a second class municipality with a committee of 9 members, 3 nominated and 6 elected. (Punjab Govt. Notn. No. 687, dated 28th Sept. 1886). The average municipal income for the ten years ending 1902-3 was

CHAP. IV. — Places of Interest.

Raikot.

Rs. 6,805, and the average expenditure Rs. 6,472. The chief items of income and expenditure for 1902-3 were as follows: —

Income.	Rs.	Expenditure.	Rs.
Octroi	5,040	Administration	1,122
		Public safety	697
Municipal property and powers ...	1,565	Public health and convenience ...	4,659
		Contributions	180
Grants and contributions... ...	915	Public instruction	1,691
		Others	465
Others	750		
Total	8,270	Total	8,814

The municipal boundaries were fixed by Punjab Govt. Notn. No. 683, dated 28th Sept. 1886. Its rules of business will be found in the *Punjab Gazette* for March 1887, p. 284 of Part III, and Notn. No. 43, dated 3rd Augt. 1898 (Ml. Manual, pp. 357-8). Octroi limits were defined by Punjab Govt. Notn. No. 479, dated 1st July 1890; and the schedule was prescribed by Notn. No. 822, dated 5th July 1876. Building bye-laws will be found in the *Punjab Gazette* for Jan. 1888, p. 70 of Part III, and penal bye-laws were sanctioned by No. 371, dated 3rd June 1890. In the case of the latter the model rules were adopted (Ml. Manual, p. 450-1).

RAIPUR.

Raipur.

Raipur, 11 miles south of Ludhiána, is the chief village of the Garewal Jats, who wielded some local authority at the close of the 18th century. The houses are almost all built of burnt bricks. The population is mostly agricultural; but there are a good many shops in the *bázár*. The village has 12 headmen Population (1901) 4,416.

SAHNA.

Sahna.

Sahna, the headquarters of a Police Station, 54 miles south-west of Ludhiána, is the largest of the Jangal villages, and the original seat of the Malaudh family, who have a large fort in it. Its inhabitants are almost all agriculturists, and the houses are of sun-dried bricks. The *bázár* contains a few ordinary shops. The village had 17 headmen. Population (1901) 4,469.

SAHNEWAL.

Sahnewal.

Sahnewal, a station on the North-Western Railway, 9 miles south-east of Ludhiána. A good *bázár* is springing up. Population (1901) 2,422.

SAMRALA TAHSIL.

Samrála Tahsíl.

Samrála Tahsíl of the Ludhiana Distirict, Punjab, lying on the south bank of the Sutlej between 30° 37′ and 30° 59′ N and 76° 2′ and 76° 24′ E., with an area of 291 square miles. Its population was 154,995 in 1901 as against 158,770 in 1891. It contains the towns

CHAP. IV
Places of interest.

of Khanna (3,838) and Máchhiwára (5,588) and 263 villages, among which is Samrala, the tahsil headquarters. The land revenue, including cesses, amounted in 1902-03 to Rs. 3,56,750.

SARAI LASHKARI KHAN.

Sarái Lashkari Khan.

Sarái Lashkari Khan, 8 miles west of Khanna, a brick *sarái* similar to that at Khanna, built in the time of Aurangzeb Alamgír. It is still in use, and is in possession of Government, by whom a *chaukidár* is entertained.

TIHARA.

Tihára.

Tihára has already been described in Chap. I. It is situated in the north-west extremity of the district on the high bank over the Sutlej, 27 miles west of Ludhiána. Its present inhabitants are the ordinary agricultural and miscellaneous population (2,609 souls in 1901) of five or six villages (called *tarafs*), who are collected together in a common site like the people of the *agwárs* of Jagráon. It has also a fair *bázár* with a number of shops. The old town has long since disappeared in the river and no traces of it remain.

The village contains a *maqbara* of Sháh Ishqwála, a brick tomb needing repairs to plinth and dome, the latter being in ruins. It lies in the common burial-ground and is not looked after. The *maqbara* of Sháh Diwán, a mile west of the village, is said to have been built in the time of Akbar. It has a grant of 190 *bigahs* of land attached to it for maintenance.

APPENDIX I.

Weights and Measures.

Appendix I.

Measures of length, weight and capacity.

Gordon Walker, S. R., § 144.

The unit of cloth measure is the *girah*, the width of the first three fingers, 16 *girahs* going to the *gaz* or yard. In the *gaz* used for *pashmina* there are said to be only 14¾ *girahs*. The *gaz* is two cubits (*háth*), *i.e.*, twice the length from the elbow to the tip of the middle finger.

The scale for weight is as follows :—

37 *paisa mansúri* = 1 *ser kachcha*.
40 *sers kachcha* = 1 maund *kachcha*.

The *mansúri paisa* is the old copper coinage of the country. The *kachcha* scale is used everywhere, and the whole of the grain trade is done in it, even in the shops of Ludhiána no other being used. The *kachcha* maund is at Ludhiána 17 of our standard *sers*. It varies slightly through the district, this being a remnant of Sikh times, when every ruler had his own weight. A Jagráon maund is about four *sers* (*kachcha*) less than that of Ludhiána; and one of Pakhowál something smaller still. Weighing is generally done with a 10 seer (*kachcha*) weight, called *dasera*, which has a Government stamp on it. Almost every agriculturist has a weighing balance (*takri*) of his own. A *máp* or earthenware vessel is used in the field for finding out roughly the amount of grain, but in selling, the balance and weights are always used. Milk is sold and bought by the *sers;* but it is generally measured in a *gadwa* or brass vessel of known capacity. Oil is also sold by weight, and it may be said that measures of capacity do not exist.

Measures of area.

Gordon Walker, S. R., § 145.

The bigah of Akbar.

The measure of area has been the subject of much inquiry and of a good deal of correspondence. Mr. Gordon Walker thus discusses the subject: "The emperor Akbar fixed one standard *bígah* for the whole empire, *viz.*, a square of which each side was a chain. The chain was 20 *ghattas*, each *ghatta* being 3 *Iláhi gaz*. Thus 3 *Iláhi gaz* = 1 *ghatta*, 20 *ghattas* = 1 chain. The *ghatta* I do not find mentioned in the Aín Akbari, and I could not before account for it. The *Iláhi gaz* was Akbar's standard of linear measurement, and is somewhat less than ours, so that the *ghatta* is 2¾ of our yard. The Sikhs introduced their own land measures, of which mention will be made hereafter. The imperial *bígah* was restored as the official standard in our settlement of the villages acquired in 1835, and in the whole district in 1850; but the people have not adopted it. They know it very well, but they say that it bears a certain relation to the local measure. There is no connection between *gaz* or *ghatta* on which it is built, and the pace on which the people always fall back. The ancient measures of the country are the *ghumáo* and the *kachha bígah*. The latter is the standard of Hindustan or the Cis-Sutlej country; and the former appears to be in use all over the Punjab proper, and it has also partly spread in the Málwah. In the uplands of this district the *ghumáo* is used in the greater part of Jagráon and in the Jangal villages, and the *bígah* in the rest. In the Bét the *ghumáo* pervails, except in a small piece of country about Matewárah. The Bét tract was all in the Jullundur Doáb at one time, and brought the Punjab measure with it when the river changed its course, the exception mentioned above being caused by Sudha Singh introducing the use of the *bigah* in the new villages which he founded, so as to have one standard for the whole of his territory. It was not in the power of the rulers to make the people adopt a new measure; but they could fix the standard of that measure.

Measures of country.

Appendix I.

Measures of the country.

"The scale of the *ghumáo* is as follows:—

3 *Karams*, double paces each way=1 *mandla.*
7 *Mandlas* = 1 *kanál.*
8 *Kanáls* = 1 *ghumáo.*

"But generally the *ghumáo* is said to be four *kachcha bígahs.* A *kachcha bígah* is 20 *karams* each way. The *karam*, however, is a very varying quantity, and it was here that the difference came in. The rulers had constant necessity for using a measure either for the land on which cash rates were charged (*zabti*) or for *kankút* appraisement of the crop; and there were in every petty state some persons whose pacing was recognized as the Government standard. The *karam* would be fixed by the ruler at so many *chappas* or hand breaths 16 to 18; and the pacing was done to suit this. In the more highly cultivated eastern villages the *karam* was smaller, and that of the Kheri *iláqa*, adjoining Ambála, was recognized as 16 *chappas*, while in Jagráon the *karam* was 18 *chappas.* This difference of measures has remained in force, and the *kachcha bígah* of Jagráon is about two-fifths, while that of Kheri is two-sevenths, or less, of the standard official *bígah.*

The scale of the *kachcha bígah* is—

20 *karams*	× 1 *karam*	= 1 *kachcha biswah.*
20 ,,	× 20 ,,	= 1 *kachcha bígah.*

"I may say here that we have finally adopted for future use a *kachcha bígah*, one-third the old *pakka bígah*, measured by a chain of 29 *karams*, the *karam* being 57 inches, and the chain 95 feet. This is a good average for the district, and fits into the old standard."

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WITH MAPS.

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CHAPTER III.—ADMINISTRATIVE—continued.

CHAPTER III.—ADMINISTRATIVE—concluded.

CHAPTER IV.—PLACES OF INTEREST.

TABLE OF CONTENTS.

CHAPTER I.—DESCRIPTIVE.

CHAPTER II.—ECONOMIC.

CHAPTER III.—ADMINISTRATIVE.

MALER KOTLA

The maps noted below will be found useful for reference :—

I.—Survey Department Maps—

Punjab standard sheets. Scale 1″=1 mile. Nos. 253, 254.

CHAPTER I.—DESCRIPTIVE.

Section A.—Physical Aspect.

The State of Máler Kotla forms a compact wedge of territory which dove-tails into the northern border of the Phulkián States. It is bordered on the north by the Ludhiána Tahsil and District and encircled on the east, south and west by Patiála State territory, the Loht Badi *iláqa* of the Nábha State bordering it on the north-west. Two villages Mánki and Sandaur belonging to the Ludhiána District, lie between this part of Nábha and the State, and the small block of Ludhiána territory called Jandiáli Kalán is just within its northern border. Lying between 30° 24′ and 30° 41′ N., and 75° 42′ and 75° 59′ E., the State is 18 miles long by 22 broad, and has an area of 167 square miles, with a population (1901) of 77,506 souls.

CHAP. I. A.

Physical Aspect.

The country is a level plain unbroken by a single hill or stream and varied only by sand drifts, which occur in all directions and in some parts assume the shape of regular ridges. The Bhatinda Branch of the Sirhind Canal passes through the northern part of the State, but no irrigation is effected from it owing to the refusal of His Highness the present Nawáb, Muhammad Ibráhím Ali Khán, to permit canal irrigation in the State.

The State is badly wooded, whole tracts of cultivation being entirely without trees, except a few stunted *kíkars* here and there. Some *barothás* and *pípals* exist round village sites, and the *shísham* has been planted on road-sides, but the demand for culturable land is too great to admit of trees being planted elsewhere.

Geology, etc.

There is nothing to note under the head of Geology, as the State is situated entirely in the alluvium. Geographically, it is part of the adjacent Phulkián States, and its fauna and flora resemble those of the Patiála or Nábha territories, which adjoin it.

The climate of Máler Kotla is dry and healthy, resembling that of the Jangal tract of the Ludhiána District and Barnála Nizámat in Patiála.

Rainfall.

At Settlement the average annual rainfall in Máler Kotla was taken at 23 inches (*vide* Assessment Report, § 4). This amount would be sufficient for agricultural purposes, but the minimum is as low as 10 or 11 inches, which is too little. The soil of Kotla is, however, so retentive of moisture that even a small amount of rainfall produces an average crop, provided it is seasonable. During the 13 years 1891-92 to 1903-04 the average rainfall only amounted to 19 inches annually.

CHAP. I, B.
History.

Section B.—History.

The founder of the Kotla family at Máler was Sadr-ud-Dín, commonly known as the Shaikh Sadr Jahán,[1] a Sarwáni Afghán of Daraband in Khurásán, a very pious man of much celebrity in his time, and a disciple of the Pír Rukn Alam, the Multáni, whom he left with the intention of spending his life in seclusion; and settled at Bhumsi, a place which lay on a tributary[2] of the river Sutlej. Sultán Bahlol Lodi[3] had halted at Bhumsi, when on his way to attack Delhi, with his Wazír Hámid Khán, when Sadr-ud-Dín got into his service. Bahlol had no sooner become king of Delhi than he gave him his daughter Táj Murassa Begam in marriage in 1454 A.D. with, of course, a suitable dowry in a tract of land containing 12[4] large and 56 small villages. Subsequently the Shaikh contracted a second wealthy marriage in the family of Bahrám, the Bhatti chief of Kapúrthala. He died at the age of 71 in 1515 A.D., leaving three sons, Isa, Hasan and Musa by the Lodi princess, and a daughter[5] by the Bhatti lady. The present Máler Kotla family is descended from Isa, the descendants of Hasan being now merely *khalífas* or attendants at the shrine of Sadr Jahán. Musa had died without heirs in the lifetime of his father.

The death of Sadr-ud-Dín gave rise to a series of disputes among his sons regarding the succession. These might have ended in disaster had it not been for the interference of the Hákim or Subah of Máler, by whose order a portion of the estate was set aside and divided among the brothers, Isa, the eldest son, succeeding to the whole of the remainder. Henceforward they had no quarrels about their *jágírs*. Hasan left two sons Sulaimán and Mirza, while Isa left a son, Muhammad Sháh, who succeeded his father. One of the sons of Hasan killed the Súbah of Máler, and was for this act driven into exile and his estate confiscated. His cousin Muhammad Sháh was also involved in this punishment, a fate which threw him into the arms of the Rai of Sunpat. Meanwhile Sher Sháh had overthrown Humáyun, whereupon Muhammad Sháh borrowed a large sum of the Rai and recovered his *jágír* by buying over the Súbah of Sirhind. He did not, however, allow his cousins to share in it, as they had contributed nothing to the cost of its recovery, and they became dependent on the offerings at the shrine of Sadr Jahán. He died, leaving three sons, of whom Khwája Maudúd, the eldest, succeeded to his father's estate in 1545,

(1) The title Sadr-i-Jahán or Kizá-ul-Kuzát, also called Sadr-ul-Islám, was that of the chief officer of justice at the Delhi Court circa 1300 A.D.

(2) This tributary is still traceable, its course being marked by the torrent which runs between Máler and Kotla after heavy rain.

(3) Malik Bahlol Lodi was a nephew of Sultán Sháh Lodi, who held the *pargana* of Sirhind in *jágír* under the Emperors Mubárak Sháh and Sayyid Khizr, and succeeded his uncle in that fief E. H. I., V, p. 17.

(4) Máler, Hadiaya, Barnála, Phul, Mahráj, Langowál, Sanghera, Pail, Chamkaur, Amrgarh, Balián and Amloh are said to have been the 12 'large villages.'

(5) The daughter was married in Tohána near Jakhal to a Rájpút family, where her tomb still exists.

his brothers only receiving a few villages for their subsistence, which their descendants still possess.

Khwája Maudúd Khan had three sons, the eldest of whom was Fateh Muhammad, who succeeded his father.

Fateh Muhammed Khan left one son, Báyazíd Khan, who was fifth in descent from Sadr Jahán.(1) He was the first to considerably enlarge the family estates, and founded Kotla near Máler, in 1657. He frequented the Delhi court and received from the Emperor the *parganas* of Kadrábád and Naugánwa in *jágír*. He died in 1659, leaving four sons, the eldest of whom, Firoz Khan, succeeded as Rais. Firoz Khan died in 1672. His eldest son, Sher Muhammad Khán, was a prominent general of his time. He served in the Bihár campaign and his services were rewarded by a *jágír* of 70 villages, one of which, Sherpur,(2) now in the Patiála State, he fortified. He also served in Badaun, aiding the imperial forces to suppress the revolt of Ali Muhammad, the Rohilla. In his days began that incessant warfare with the Sikhs, under the Gurús Tegh Bahádur and Gobind Singh, which endured until quite modern times, and by which the State of Máler Kotla was almost annihilated. Sher Muhammad himself was, however, successful in opposing the rising power of the Sikhs, for he defeated the Gurú Tegh Bahádur at Chamkaur in a desperate fight in which his brother Khizr Khán and Náhar Khán, his nephew, were killed. In this battle the Gurú was captured and sent as a prisoner to Delhi under an escort commanded by Sher Muhammad's son, Ghulám Hussain. The sons of the Gurú also were all captured on this occasion (except one who escaped to Bágrián, where he died of his wounds) and subsequently put to death at Sirhind, despite the remonstrances of Sher Muhammad, who thereby earned the gratitude of the Gurú. In return for his services to the empire Sher Muhammad received the *iláqa* of Khamáno in fief, and at his death in 1712 the State comprised the 13 *parganás* of Bahlolpur, Khizrábád, Khamáno, Isru, Pail, Dhamot, Amloh, Bhádson, Kapúrgarh, Naugánwa, Sherpur, Balian and Máler.

The next Raís, Ghulám Hussain Khán, was a timid man, of a simple and peaceable disposition. He, in his lifetime, excluded his sons from the chiefship, for what was considered to be pusillanimity, and installed his brother Jamál Khán on the throne. He himself abdicated and took a small *jágír* of five villages, called Panjgiráin, for his expenses.

Jamál Khán was a great chief in his day and the ancestor of all the ruling family and the leading *jágírdárs* in the State of the present day. Shortly after his accession he became engaged in a guerilla warfare with the neighbouring Sikh chiefs, and encountered the Rája of Patiála at Sanghera in a sharp fight, in which, though at

(1) It is also said that Báyazid Khán received the title of Nawáb from the Emperor.
(2 Its name was Habíbwál, but he re-named it Sherpur,

CHAP. I, B.
History.

first victorious, he was defeated, his force taking to flight on seeing some of their leaders killed in an ambuscade. He thus lost the Sanghera *iláqa* in *pargana* Balián, including Hádiáya, which Ala Singh made his capital. In 1747, however, he received a letter from Ahmad Sháh, Durráni, requesting him to disperse the Sikh forces, which were gathering in the country between the Sutlej and Sirhind, and he accordingly sent a force under his son, which defeated the Sikhs and pursued them as far as Samad. For this service Ahmad Sháh gave him a robe of honour, but some time after this event he allied himself with the Rai of Raikot in a demonstration against Alá Singh, the Rája of Patiála, and was signally defeated near Barnála He thus lost this town, but soon after he took possession of Máchhiwára and Rúpar.

Upon Ahmad Sháh's departure from India, Adína Beg seized the opportunity to form an alliance with the Sikhs and take possession of Rúpar. Jamál Khán went to expel the insurgents from that place and he attacked it at the head of his troops, but it was strongly fortified and offered a stubborn resistance. During the siege Jamál Khán was killed by a bullet.

He left five sons, the eldest of whom, Bhíkan Khán, became Raís. He seems to have been a temporiser, alternately a friend of the Sikhs and[1] of Ahmad Sháh Durráni From the latter he received the right to coin in his own name, and. during his sojourn in India, defeated the Sikhs at Rohíra and recovered certain villages which they had wrested from him. But after Ahmad Sháh's departure the Sikhs returned to the attack, and Bhíkan Khán, being worsted in a skirmish with Amír Singh at Kálájhár near Sámána, was retreating on Kotla, when he was shot from behind while drinking from a well by a Sikh villager. This occurred in 1763.

Bhíkan Khán left two sons, Wazír Khán and Fateh Khán, who were infants. His brother,[2] Bahádur Khán, succeeded him. This chief's reign was a series of disasters. His arrogance made him obnoxious to the Kotla Afgháns, and the State treasure was in the hands of Bhíkan Khán's widow. so that his troops remained unpaid.[3] But though deserted by all, his influential kinsmen, Bahádur Khán, offered a stubborn resistance to the Sikhs, whose superior forces alone enabled them to overrun the whole State, save a strip of territory round Kotla itself. The chief met his death in an engagement with the Sikhs at Jhal in 1766.

Bahádur Khán also left two sons, Himmat Khán and Daler Khán,[4] who succeeded to their father's estate, but again the chief-

(1) He conferred the village of Bagrián upon the Bháís of that place.
(2) It is said that Bahádur Khán, at first their guardian, usurped the throne.
(3) Because, it would seem, she regarded him as an usurper, and retained the treasure on behalf of Wazír Khán.
(4) Daler Khán adopted Shiaism, but was unable to profess it openly

CHAP. I. B.
History.

ship went to the eldest surviving brother, Umr Khán.[1] He attempted to recover the villages taken by the Sikhs, and fought a battle at Tibba with his neighbour Rája Amr Singh of Patiála. The contest was carried on with varying results, until the Rai of Ráikot intervened, and a treaty was effected by which the Rája agreed to restore 116 villages to Umr Khán, but he only actually restored 74. Nevertheless, after this treaty, Umr Khán maintained friendly relations with the Rája. Asad-ulláh Khán, the fourth brother, next became Raís.[2] He continued to live amicably with Rája Amr Singh of Patiála, and during that ruler's invasion of Siálba sent his troops to assist the Sikhs and thus cemented the alliance between the States.

On his death in 1782, Atá-u-lláh Khán[3] the last of the five sons of Jamál Khán, succeeded him. His reign was one of continuous war, but he held his own with some success. The valiant Sirdár Chuhar Singh of Bhadaur seized Kanganwál and Atá-ulláh Khán, fought and recovered it. Soon afterwards Díwán Nánu Mal was dismissed from his office in Patiála and took refuge in Kotla, where he proceeded to instigate Atá-ullah Khán to declare war on his old master, alleging that his treasury was empty and his subjects ripe for revolt. Atá-ullah Khán accordingly attacked the Rája of Patiála at Khánpur, but was defeated. Nánu Mal soon after died in 1792, at Kotla. The Bedi Sáhib Singh now preached a holy war against the Kotla Afgháns, as killers of kine, and attacked Máler with a large force. Atá-ullah Khán made a gallant resist- 1794 A. D.
ance, but, being unable to hold the town, he retreated into Kotla, which was more strongly fortified, and despatched messengers to the Rája of Patiála for assistance. The Rája's troops were encamped at Amrgarh, but before they reached Máler Kotla, the Bedi, who had received a bullet-wound in the siege, withdrew his troops and retired across the Sutlej.

By 1788, the Mahrattas had become predominant in that part of the country which lies between the Jumna and the Sutlej. They were gathering strength under Sindhia, when the British first defeated them at Laswári in 1803, and again General Lake's forces gave them under Holkar a crushing defeat in 1805. In General Lake's campaign against Holkar, Atá-ullah Khán joined the British forces with all his troops and followers, and continued with them till the victory of Laswári was complete and the English had become the paramount masters of the cis-Sutlej country.

In 1808 anjít Singh, having deprived Raikot of the last shred of independence and divided the villages of that State between

(1) It is said that Umr only succeeded to the guardianship of Wazír Khán, but subsequently usurped the throne: while Bahádur Khán's sons only succeeded to their father's private estates because he was not *de jure* Nawáb or Raís.
(2) Or guardian of Wazír Khán.
(3) As guardian of Wazír Khán, it is said.

CHAP. I, B. History.

Jínd, Nábha and other chiefs, turned towards Kotla and demanded a *lákh* and a half of rupees as the price of his non-intervention. Two-thirds of this sum were paid at once. For the remaining Rs. 50,000, five villages[1] were mortgaged to the Mahárája, who, despite the remonstrances of Sir C. Metcalfe, established military posts which were subsequently removed by Sir D. Ochterlony. Ranjít Singh had also left his Tahsildars and Thánedárs to recover the money, but in 1810 the State came under British protection, and the Sikh officials were removed. When Ranjít Singh came to Máler Kotla, Wazír Khán laid his claim before Sir C. T. Metcalfe, the British envoy, who told him that he could not interfere as the treaty with Maháhrája Ranjít Singh had not yet been signed. After the treaty of 1809, and the British proclamation of a protectorate over the Cis-Sutlej territory, Wazír Khán laid his claim formally before Sir David Ochterlony declaring that he was the rightful heir, but being an infant at his father, Nawáb Bhíkan Khán's death, his uncles had usurped his rights. The case was pending when Atá-ulla Khán died in 1810, and his son Rahmat Ali Khán claimed the Raís-ship. But the rights of Wazír Khán were upheld and he was made Nawáb.

At the same time the British Government directed that the law of primogeniture should in future apply.[2] Wazír Khán led an uneventful life. He assisted Sir D. Ochterlony with supplies and transport in the Gurkha war, and his son, Amír Khán, served with a small contingent at the siege of Malaun in 1814. Wazír Khán, dying in 1821, was succeeded by his son, Amír Khán, who himself led a contingent force to serve in the first Kabul war of 1839, and fought on the side of the British at Múdki and Ferozsháh, receiving in recognition of his services[3] the villages of Maherna-Rasúlpur and Fatehpur Chhanna with the title of Nawáb. He sent another contingent to help the British in the second Gurkha campaign. He died in April 1846 and was succeeded by his son, Mahbúb Alí Khán, better known as Sube Khán. Like his Sikh neighbours, he was on the side of the British in the Mutiny of 1857 and did good service at Ludhiána accompanied by the other Kotla Kháns. He died in November 1859.

His son, Sikandar Alí Khán, seems to have spent all his time in quarelling with his relatives. He had two sons, both of whom died young.

Sikandar Ali Khán then nominated Ibráhím Ali Khán, the eldest son of Diláwar Ali Khán, as his heir, in pursuance of the right of adoption conferred on him by the British Government in

---

(1) Lehra, Pohir, Jhamat, Kulahr and Janghera.

(2) Wazír Khán's brother, Fateh Khán, held a separate *jágir*. His branch ended with Yakúb Alí Khán, who brought a *maulvi*, Abdúr Rahím, from Ráikot to teach Arabic in Máler Kotla, and thus atoned for the debauchery which caused his early death.

(3) In 1824 his troops also suppressed the Akális, who had committed a murder at Sháhbád.

CHAP. I, B.
History.

1861. The present Nawáb, Muhammad Ibráhím Ali Khán, is thus the great-grandson of Atá-ullah Khán, the fifth son of Jamál Khán.

In 1866 a council, consisting of Munshi Kanhaya Lál, Qázi Ghulám Sarwar and Saráj-ul-Haq, was appointed by Government to adjust the claims of Jamál Khán's descendants *inter se*, and also those of their servants. In this same year a salute of 9 guns was conferred by Government on Nawáb Sikandar Ali Khán and his successors.

In 1869 trouble arose between the Nawáb and Ghulám Muhammad over an alleged mortgage of the village of Choong to the former. Bloodshed ensued, but the matter was eventually compromised.

Nawáb Sikandar Ali Khán was present at the Viceregal *darbár* of 1869, held in honour of the late Amír Sher Alí Khán of Kábul, and next year went to Lahore to have an audience with His Royal Highness the Duke of Edinburgh.

On the death of Nawáb Sikandar Ali Khán in 1871, the line of Bhíkan Khán ended, and Ibráhím Alí Khán, his adopted son, succeeded him at the age of 14, his claim being formally recognised by Government in 1872. Mr. Heath, an officer of the Punjab Commission, was appointed Superintendent of the State during his minority. A year after his accession, *i.e.*, in 1872, the fanatic Kúkás attacked Kotla, killing some townspeople and plundering houses. After their withdrawal from Máler Kotla, they made for Patiála territory, where they were captured and handed over to the Máler Kotla authorities, and they were executed by Mr. Cowan, Deputy Commissioner of Ludhiána, under orders of Mr. Forsyth, Commissioner and Agent of Ambála.

The Nawáb Muhammed Ibrahím Alí Khán was invested with full power in 1875. The pernicious custom-whereby every scion of the house got a share of the State with full rights,—fiscal, judicial and administrative over it,—was discontinued during the reign of the Nawáb and a new rule laid down by the British Government, whereby the Nawáb alone was permitted to exercise judicial and executive powers within the State territory. The old Khán, Ghulám Muhammad Khán, was, however, allowed to continue to exercise for life the judicial functions he had enjoyed during the rule of the late Nawáb. Khán Ghulám Muhammed Khán died on the 3rd of May 1878, and his sons then ceased to exercise any judicial or revenue powers in their *jágírs*. The status of the Kháwánín, the members of Jamál Khán's family, was modified in the last settlement, and further modified by the Government in 1899 on their filing an appeal against the State in 1896. They have now no control whatever even in their own villages, and are all mere *jágírdárs* under the suzerainty of the Nawáb.

CHAP. I, B.
History.

The improvements made by this Nawáb were :—

(1) Seven schools were established in the State—two in Kotla and five in different villages. Of these only one, at Máler Kotla, still exists.

(2) A charitable dispensary was established in Kotla.

(3) Two new metalled roads were constructed in the State territory, towards Nábha and Sangrúr. Metalled roads and drains were also made in the capital.

In 1877 the Nawáb was invited to the Imperial assemblage at Delhi, and honoured with an additional salute of two guns as a distinction personal to himself on the occasion of the proclamation of Her Imperial Majesty the Empress of India.

In 1878, at the request of the Nawáb, Government sanctioned a contingent of 220 Infantry and 60 Cavalry which was equipped for Frontier service. Khán Sáhib Ináyat Ali Khán, brother of the Nawáb, was attached to the staff of General Sir John Watson as an Aide-de-Camp to represent the Máler Kotla State The State also supplied a number of transport animals for the British forces on their departure to, and return from, Kábul. In 1880, the Nawáb was invited to attend the Viceregal *darbár* held at Lahore. Two years afterwards, he attended the Viceregal *darbár* of Rúpar, held on the 24th November, to celebrate the opening of the Rúpar Canal.

The Nawáb had three sons, Sáhibzádás Isháq Ali Khán, Ahmad Ali Khán, and Jáfar Ali Khán, of whom the eldest died in 1884 at the age of ten. The death of this son, followed closely by the death of the Begam, affected the Nawáb's reason and he withdrew from worldly affairs. The State had then to be placed under the management of a Superintendent by Government, and this arrangement lasted up to 1903, when Sáhibzáda Ahmad Ali Khán, the heir apparent, took charge of it from the Hon'ble the Nawáb of Loháru, the last Superintendent. The young Nawáb is a well educated and promising youth. During the *regime* of the Court of Wards the following four Superintendents managed the State affairs :—

(1) Kázi Ahmad Sháh from 17th April 1885 to 13th September 1886.

(2) Mr. G. E. Wakefield, the retired Deputy Commissioner of Ludhiána, from 19th February 1887 to 17th August 1889.

(3) Khán Bahádur Mirza Agha Muhammad from 18th August 1889 to 1st January 1893.

(4) Council from 1st January 1893 to 1st May 1893.

(5) The Hon'ble Nawáb Sir Amír-ud-dín Ahmad, Khán Bahádur, K.C.I. E., Chief of Loháru, from 1st May 1893 to 1st January 1903.

CHAP. I, B.

History.

The period of his 10 years' Superintendentship is remarkable for a number of improvements such as the construction of the Ludhiána-Dhuri-Jakhal Railway and the organization of the company of Imperial Service Sappers in 1894. The corps saw first service in the Tírah Expedition of 1897-98 and was again on active service in the China Campaign of 1900-01.

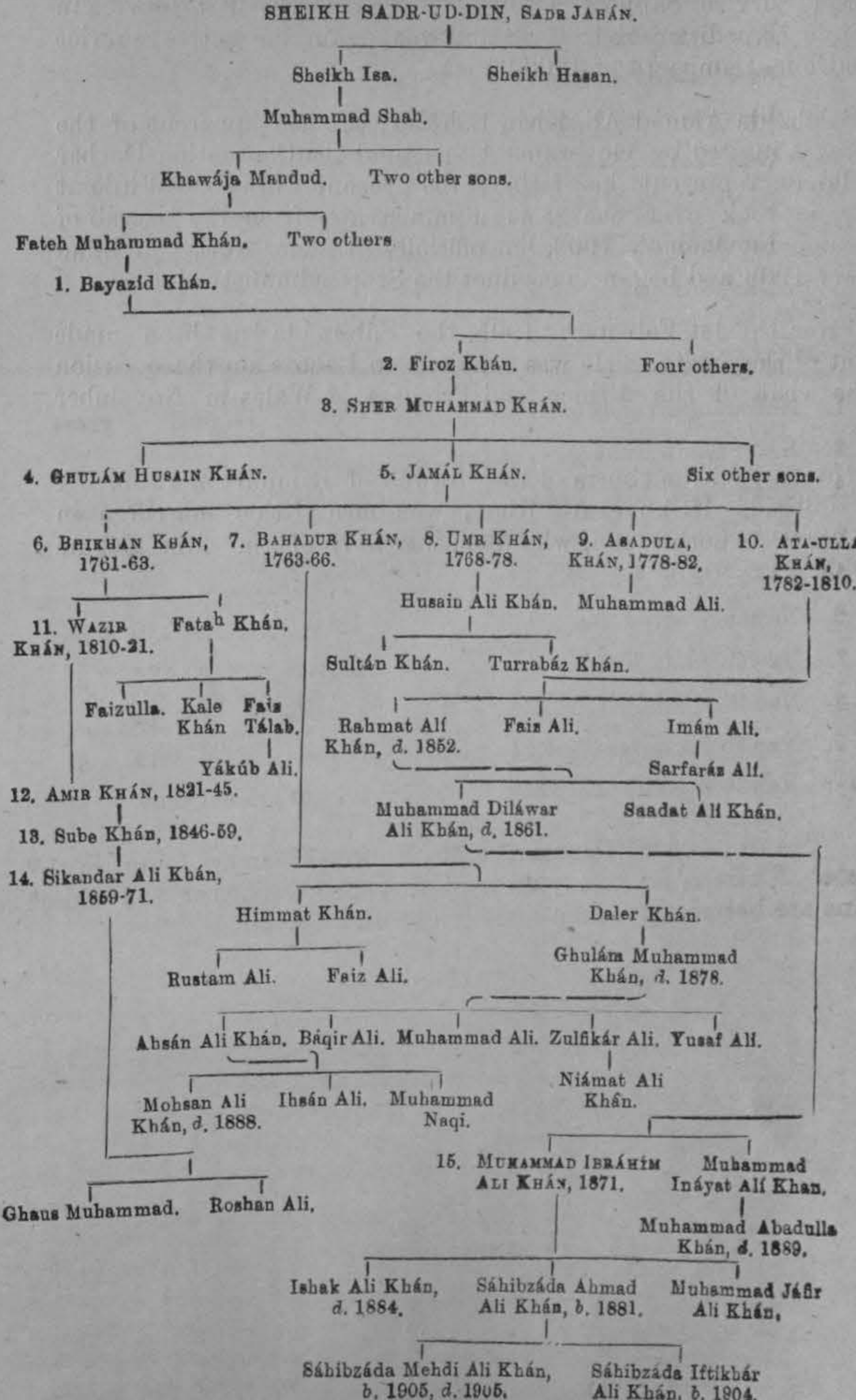
Sáhibzáda Ahmad Ali, Khán Bahádur, the heir-apparent of the State, was invited by Government to attend the Coronation Darbár of Delhi to represent his father, the present Nawáb. While at Delhi, he took over charge as administrator from the Nawáb of Loháru on 1st January 1903, but officially at Máler Kotla on 22nd January 1903 and began to conduct the State administration.

From the 1st February 1905, the Sáhibzáda has been made Regent of the State. He was invited to Lahore on the occasion of the visit of the Prince and Princess of Wales in November 1905.

He married the cousin of the Nawáb of Rámpúr in 1903. A son, Sáhibzáda Iftikhár Alí Khán, was born of this marriage in May 1904. Another son, who died, was born of the first Begam in 1905.

CHAP. I, B.
History.

THE GENEALOGY OF THE RULING FAMILY OF THE MALER KOTLA STATE.



[See Appendix I.]

CHAP. I, B.
History.

The coins of the Máler Kotla chiefs extend over the following reigns:—

Raís Bhíkan Khán, A. D.	1761-63,	reigned	2	years.
Raís Bahádur Khán,	1763-68,	„	5	„
Raís Umr Khán,	1768-78,	„	10	„
Raís Asád-ullah Khán,	1778-82,	„	4	„
Raís Ata-ullah Khán,	1782-1809,	„	27	„
Raís Wazír Khán,	1809-21,	„	12	„
Nawáb Amír Khán,	1821-45,	„	24	„
Nawáb Sube Khán,	1845-59,	„	14	„
Nawáb Sikandar Ali Khán,	1859-71,	„	12	„

Another account differs somewhat from the above:—

1.	Nawáb Bhíkan Khán,	A. D.	1754-61,	reigned	7	years.
2.	Khán Sáhib Bahádur Khán,	„	1761-66,	„	5	„
3.	Khán Sáhib Umr Khán,	„	1766-79,	„	13	„
4.	Khán Sáhib Asád-ullah Khán,	„	1779-83,	„	4	„
5.	Khán Sáhib Ata-ullah Khán,	„	1783-1811,	„	28	„
6.	Nawáb Wazír Khán,	„	1811-21,	„	10	„
7.	Nawáb Amír Khán,	„	1821-45,	„	24	„
8.	Nawáb Mahbúb Ali Khán,	„	1845-59	„	14	„
9.	Nawáb Sikandar Ali Khán,	„	1859-71,	„	12	„
10.	Nawáb Ibráhím Ali Khán	„	1871 to present time.			

The coins of all the chiefs from Bhíkan Khán are found in the State. There is no great difference in type except that the oldest coins are better cut, and a little larger and heavier.

CHAP. I. C.

Population.

Section C.—Population.

Density. Table 6 of Part B.

Máler Kotla has a density of 464 to the square mile—a figure which is only exceeded in the Punjab Native States by Kapurthala. Although Máler Kotla has no irrigation, it slightly exceeds Ludhiána in density, Ludhiána showing 463 persons to the square mile.

Villeges and town. Table 7 of Part B.

There is only one town, Máler Kotla, in the State. Of a total population of 77,506, the town accounts for 21,122, while the rural population is 56,384.

There are 115 villages in an area of 167 square miles. The occupied houses number 17,051, of which the town claims 4,987 and the villages 12,064.

Growth of population. Table 6 of Part B.

1881	... ...	71,051
1891	... ...	75,755
1901	... ...	77,506

The population at the last three censuses is shown in the margin. The increase since 1891 is thus 1,751. As, however, the town of Máler Kotla has decreased by 632 in the same period the rural increase in the State is really 2,383.

Migration. Tables 8 and 9 of Part B.

The following table shows the effect of migration on the population of the Máler Kotla State according to the Census of 1901:—

	Persons.	Males.	Females.
IMMIGRANTS.			
1. From within the Punjab and North-West Frontier Province.	18,512	4,991	13,521
2. From the rest of Asia including India	399	201	198
Total immigrants	18,911	5,192	13,719
EMIGRANTS.			
1. To within the Punjab and North-West Frontier Province.	21,601	6,949	14,652
2. To the rest of India	26	25	1
Total emigrants	21,627	6,974	14,653
Excess of emigrants over immigrants	2,716	1,782	934

District or State.	Number of males in 1,000 immigrants.	District or State.	Number of males in 1,000 immigrants.
Ludhiána, 6,276	312	Ferozepore, 236,	360
Patiála, 8,400 ...	283	*Jínd*, 486 ...	141
Nábha, 2,068 ...	195	United Provinces of Agra and Oudh, 246 ...	487
Hissár, 216 ...	472		
Ambála, 261 ...	448		
Jullundur, 182 ...	439		

The bulk of the immigration is from the Districts and States and Provinces in India noted in the margin.

CHAP. I, C.
Population.
Migration.

District or State.	Males.	Females.	District or State.	Males.	Females.
Karnál	85	77	*Patiála*	2,846	5,342
Ambála	105	130	*Nábha*	858	1,726
Jullundur ...	63	102	*Jínd*	298	239
Ludhiána ...	2,104	6,223	Chenáb Colony ..	204	147
Ferozepore ..	444	416			

The emigration is mainly to the Districts and States noted in the margin.

The State thus loses 2716 souls by migration and its net interchanges of population with the Districts, States and Provinces in *India* which mainly affect its population are noted in the margin.

Nett gain from + or loss to −

Patiála	+	712
Nábha	−	516
Ludhiána	−	2,051
Ferozepore	−	624
Chenáb Colony	−	351
United Provinces of Agra and Oudh ...	+	246

Gain or loss by intra-Provincial migration.

	1901.	1891.
Total ...	−3,089	+6,959

Comparison with the figures of 1891 shows that Máler Kotla lost by intra-Provincial migration alone 3,089 souls in 1901 or 10,048 more than in 1891.

Loss by intra-Imperial migration.

	1901.
Total ...	2,719

Taking the figures for intra-Imperial migration, *i.e.*, those for migration in India both within the Punjab and to or from other Provinces in India we have the marginal data.

Age.
Table 10 *of Part B.*

The figures for age, sex and civil condition are given in great detail in Table 10 of Part B.

The following statement shows the age distribution of 10,000 persons of both sexes:—

Age period.	Males.	Females.	Persons.	Age period.	Males.	Females.	Persons.
Infants under 1	174	159	333	25 and under 30	399	386	785
1 and under 2	54	48	102	30 ,, ,, 35	397	374	771
2 ,, ,, 3	128	102	230	35 ,, ,, 40	280	261	541
3 ,, ,, 4	113	107	220	40 ,, ,, 45	382	337	719
4 ,, ,, 5	139	114	253	45 ,, ,, 50	224	160	384
5 ,, ,, 10	698	612	1,310	50 ,, ,, 55	304	235	539
10 ,, ,, 15	658	548	1,206	55 ,, ,, 60	120	77	197
15 ,, ,, 20	516	374	890	60 and over ...	401	319	720
20 ,, ,, 25	419	379	798				

CHAP. I, C.
Population.

Vital Statistics.
Tables 11 to 18 of Part B.
Birth-rate.

The average of births in the quinquennial period, 1896—1900, was 24·15 *per mille* of the population; whereas the British territory of the Punjab returned 41 *per mille* in the same period. This probably shows that the system of registration in the State is imperfect. The marginal table gives the annual figures by sexes.

Year.	Males.	Females.	Total.
1896	14·52	12·05	26·57
1897	13·94	10·83	24·77
1898	10·87	8·41	19·28
1899	12·23	10·02	22·25
1900	15·85	12·02	27·87
Quinquennial average ...	13·48	10·67	24·15

Death-rates.

The average death-rate in the same period was 16·04 *per mille* of the population as against 32·4 in the Punjab, another proof of imperfect registration. The figures by sexes are given in the margin.

Year.	Males.	Females.	Total.
1896	20·29	18·19	19·24
1897	16·24	13·51	14·87
1898	15·90	13·76	14·83
1899	15·88	13·85	14·86
1900	17·45	15·39	16·42
Quinquennial average ...	17·15	14·94	16·04

Plague appeared in the State in 1901-02, and in that year there were 2,217 cases and 1,798 deaths. In 1902-03 there were 2,098 cases and 1,884 deaths. The disease re-appeared in 1903-04. No inoculations have been performed.

Sex.
Table 16 of Part B.

The number of males in every 10,000 of both sexes is shown below:—

		In villages.	In towns.	Total.
CENSUS OF—				
ALL RELIGIONS ...	1881	5,563	5,092	5,426
	1891	5,515	5,040	5,379
	1901	5,516	5,120	5,407
CENSUS OF 1901 ...	Hindús	5,530	5,299	5,502
	Sikh	5,624	8,824	5,640
	Muhammadans	5,380	5,031	5,187

The marginal table shows the number of females to every 1,000 males under five years of age in the census of 1901.

Year of life.	All religions.	Hindús.	Sikhs.	Muhammadans.
Under 1 year ...	909·8	893·5	790	966·3
1 and under 2 ...	883·1	847·1	666·7	1,017·1
2 " " 3 ...	800	862·6	619·4	805·2
3 " " 4 ...	946·5	869·6	739·8	1,148·4
4 " " 5 ...	819·3	797·6	691·8	921·5

CHAP. I. C.
Population.
Castes and tribes.
Table 15 of Part B.

Of the agricultural population of the State over four-fifths, or 81 per cent., are Sikh or Hindu Jats; the remaining fifth comprises Muhammadan Rájpúts, found chiefly in the northern part of the State; Gujars, Kambohs, in the immediate vicinity of the capital; Rains and a few Sayyid cultivators. The non-agricultural population is made up of Patháns, the dominant race, and other castes as noted below:—

Banias, of the Agarwál sub-caste, comprising the following *gôts*:—

1. Gur.	4. Metal.	7. Mangal.
2. Goyal.	5. Mánsal.	8. Sengal.
3. Jindal.	6. Kánsal.	9. Tail.

Aroras, of the Utrádhi and Dakhana groups, which in this State form endogamous sub-castes; Bhábras, Sunárs, of the Tank and Mair sub-castes; Jhíwars, Chhímbas, Náís, Kumhárs, of the Mihr and Bagri sub-castes; Sayyids, Sheikhs, Mughals, Ranots, Khojas, Kohelas, recent settlers in the State, and Nats.

Leading families.

Himmat Khán and Daler Khán succeeded to the estate of their father Bahádur Khán in 1768. Daler was only distinguished for his adoption of Shia tenets, and he was attacked in a procession by the Sunnis, after which he refrained from any open profession of that faith. Ghulám Muhammad, the son of Daler Khán, was also a Shia. He died in 1877, leaving five sons and a heavily encumbered estate. His sons succeeded him in this and it was placed under the Nawáb. Two of his sons Muhammad Ali and Zulfiqár Ali were educated at the Government Wards' Institute, Ambála.

Himmat Khán's son Rustom Ali was left in charge of Máler Kotla in 1857, while the Nawáb and other Kotla chiefs were at Ludhiána and displayed courage and resource in the emergency. With the scanty force available he placed himself in front of the only unbarricated gate of the town and opposed a mutinous regiment which marched through the State on its way to Delhi, forcing it to pass on without assaulting the town. His cousin Ghulám Muhammad Khán was at Ludhiána where he received a seditious letter from one Idu Sháh, a Sufi, saying he had dreamt that the British were to be overthrown. This led to the execution of the Vakíl of Muhammad Khán together with that of the Sufi and others, and the *jágírs* of Rustam Ali and Ghulám Muhammad were for a time sequestrated. In 1865 Rustam Ali died without issue and his *jágír* reverted to Ghulám Muhammad.

Rahmat Ali and his two brothers succeeded to the *jágír* of their father Ra'ís Attá-ullah Khán on his death in 1809. In the Gurkha war of 1818 Rahmat Ali sent a force under Sube Khán to assist the British troops and 4 years later his brother Faiz Ali Khán, a man of stalwart stature, was employed against the Bhattis. Faiz Ali also commanded an irregular contingent in the Bartpur campaign of

CHAP. I,C.
Population.
Leading families.

1826, when he was entrusted with the task of maintaining order in the Adik *pargana* and keeping a watch on Madu Singh. Later on Rahmat Ali at the instance of the British Agent at Ludhiána sent a small force to assist in repelling Phula Singh Akali who had crossed the Sutlej with Sirdár Partáb Singh. In 1846 he furnished a contingent of 700 horse and foot under his son Diláwar Ali. This force served under Lieutenant Lake at Mudki and Firozshah till the end of the war. Rahmat Ali himself remained at Kotla to assist the passage of the British troops through his territory and to reassure the people. With the Rai of Raikot he was employed to garrison Latála, a Nábha village, the Rája of which State was encamped at Upoki. Towards the close of his life he laid claim to the *jágír* of Yakúb Ali, great-nephew of Ra'ís Wazír Khán, and taking umbrage at the rejection of his wholly inadmissible claim went to Calcutta where he died in 1852. He left two sons Diláwar Khán and Saadat Ali, and Rahmatgarh, a village founded by him, perpetuates his name. His early death was a loss to the State as he was a thorough soldier, strict in religious observances and a good manager of his estate. His son Diláwar Ali Khán succeeded to his *jágír*. An accomplished Persian and Arabic scholar he served at Ludhiána with all his retainers in 1857 and died in 1861, leaving two sons, the elder of whom Ibrahím Ali Khán became Nawáb in 1871.

CHAPTER II.—ECONOMIC.

Section A.—Agriculture.

The State was treated at settlement as an Assessment Circle, and there are not sufficient differences in so small a tract to justify sub-division. **CHAP. II. A. Agriculture**

Of the total area, 513,404 *bighás kachcha*, 87 per cent. is cultivated, of the remaining 13 per cent., 6 per cent. being unculturable waste, and 7 per cent. culturable, of which $\frac{1}{7}$th or 1 per cent. is reserved as *birs* by the State or its *jágírdárs*. **Soils.**

The State contains four distinct classes of soil:—

I. { (1) Dákar, a hard loam, heavy and low-lying. (2) Rausli, or light loam. **Loams.**

II. { (3) Bhur, or sand, light and high-lying. (4) Pílak, an inferior yellowish sandy loam. **Sandy soils.**

Of these the Dákar is considered the best but there is not much of it. It requires an abundant rainfall, and then yields splendid crops. During years of scanty rain, however, the crops on it are the poorest. Rausli, the commonest soil in Kotla and the best adapted to the rainfall, is really Dákar with an admixture of sand. It is easily worked and with an average amount of rain yields good crops. On the whole taking the result of a number of years the average yield of these two soils is about the same.

The proportion of loam to sandy soil is nearly 2 to 1. Bhur may be further sub-divided into two classes: (I) when the sand deposit is not deep and has a sub-soil of good loam, it is easily ploughed, retains the moisture well and bears good crops, even with moderate rainfall: (II) when the layer of sand is deep, gram and *moth* are the only crops which thrive, and *jowár*, *charri*, etc., will not grow.

Bhur and Pílak are inferior soils and exist to a large extent in many villages especially the western ones. Here as elsewhere in the Punjab up-lands the Bhur is formed out of the Rausli itself when much tilled. The sand is silted up, leaving the clay particles behind. Irrigation restores the clay and large tracts of Bhur thus become Rausli or even Dákar.

Pílak is really Bhur with a sub-soil of yellowish clay, whence its name. About 30 per cent. of the total area is Bhur or Pílak.

The irrigated soils are classed as *niái* or *khális*. The former lies immediately around the village-site and is heavily manured, yielding two, or even three, crops a year. The latter adjoins the outlying wells and is only slightly manured, yielding but a single crop. **Irrigated soils.**

CHAP. II, A.
Agriculture

System of cultivation.

At the time of settlement only 16 per cent. of the cultivation was irrigated from wells. There is no other irrigation.

On unirrigated land the *dofasla dosála* system of cultivation invariably obtains—land is ploughed for a whole year, and then a Kharíf and Rabi are taken in succession. Of irrigated land, almost the whole *niái* is double-cropped, while the *khális* is devoted almost exclusively to wheat.

Cropping. *Table 19 of Part B.*

On unirrigated land the cropping is very simple. The Kharíf consists altogether of *jowár* or *charri* mixed with *moth* or *mung*, and the Rabi of mixtures of gram with wheat or barley, with *sarson* in lines at intervals.

The principal irrigated crops are maize and cotton in the Kharíf and wheat in the Rabi; the other grains in the Rabi being chiefly barley and other *zabti* fodder crops like *metha*, *senjhi*, carrots, etc., except in Kotla and Maler where Arain tenants grow garden crops on a large scale. The *niái* soil is heavily manured for maize and cotton and then after these are cut slightly manured again for the Rabi. Maize is almost always followed by wheat or barley, and cotton by some of the fodder crops already mentioned.

Of the total population 37,907 are returned as agricultural; the incidence of land per head of the total population is 1·2 acres.

The State was never surveyed until 1889, and consequently it is impossible to trace the increase in cultivation. At present, however, cultivation has evidently reached its limit as 87 per cent. of the total area is under cultivation and 6 per cent. unculturable, while the remainder is quite inadequate for pasturage and unlikely to be further reduced. The Settlement Officer reported that as a general rule the villages were badly off. No stores of grain or straw were to be found, and the villagers were heavily in debt. The settlement, however, has reduced the assessment and the condition of the people is better now than it was in 1890.

Sales and mortgages. *Table 21 of Part B.*

Sales and mortgages are forbidden except with the consent of the Nawáb. Sales are very rare, but mortgages with possession exist to some extent. The mortgagor makes over his land temporarily to the mortgagee for cultivation, the mortgagee being recorded as tenant-at-will.

Takavi. *Table 20 of Part B.*

The Land Improvement and Agriculturists Loans Acts are not in force; but the State grants loans to the *zamíndars* for agricultural purposes, such as construction of new wells, repair of old ones and purchase of bullocks. The works are superintended by the State and care is taken that the money is spent for the purpose for which the loan is given. The system is liked by the people and no difficulty is experienced in realising the money. The rate of interest charged is 6¼ per cent. per annum. The period of repayment allowed in the case of a loan for the construction of a well is

CHAP. II, A. Agriculture

12 years and in the case of a loan for the purchase of bullocks 2 years.

Cattle. *Table* 22 *Part B.*

An enumeration of cattle, ploughs, carts, etc., was made in 1890. The plough cattle are of very fair breed, generally imported from Hissár and Sirsa and costing from Rs. 60 to 80 a pair. Well cattle also from Hissár and Sirsa cost Rs. 100 to 120. The number of horses and ponies is proportionately large, as many leading men have procured mares for breeding purposes.

Cattle Fairs.

Cattle Fairs are held twice a year in Máler Kotla town, from the 20th to the 30th March and from the 10th to 20th October. They commenced two years ago and have already become large and important. The cattle come from all the surrounding Districts and States, especially from Hissár and Amritsár. A considerable number of ponies are also brought for sale. The number of animals sold is about 1,800. Rewards are given by the State for the best exhibits in the different classes attending the Fair.

Horse-breeding, etc. *Table* 23 *of Part B.*

One horse and one donkey stallion are kept by the State for breeding purposes. Some 25 mares are annualy covered, but the results of late years have not been good. For this reason, a new donkey stallion has been bought, and it is hoped that the yield of mules will be greater.

Irrigation.

At the time of settlement in 1890 about 16 per cent. of the cultivation was irrigated. Wells are the only method of irrigation. The Bhatinda branch of the Sirhind Canal flows through the State but does not irrigate it (see above, p. 1). The Nawáb of Loháru proposed that 3 *ráibahás* should be made in the State, one to irrigate 7 villages north of the Bhatinda branch: another from Mominábad to Panjgirain: and the third from Saraud to Ghanaur Kalán[1], but no decision has yet been made. The total number of wells in use at the time of settlement was 1,151, of which 2 per cent. had more than two buckets each, about 27 per cent. two buckets each and the rest one. In 1903 the number of irrigation wells had risen to 1,427.

The average area irrigable by a single bucket well is 11 and by a double well 17 acres. Water is found at a depth varying from 13 to 39 feet, the average depth being about 24 feet. It is sweet throughout the State. Maize and cotton need to be watered every five or six days, while for wheat and the other Rabi crops one watering in 20 days is enough. There are tanks or ponds in almost every village. These are used by cattle and irrigation from them is not feasible. There is no stream flowing through the State of sufficient size to repay the construction of a *band*.

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(1) Irrigation Commission's Rep., p. 279.

CHAP. II,D.

Mines and Mineral

Section B.—Rents, Wages and Prices.

Rents, wages and prices. *Tables 25 and 26 of Part B.*

At the time of settlement some 10 per cent. of the cultivated area was in the hands of tenants-at-will, 6 per cent. paying cash-rents, and 4 per cent paying kind-rents. The most usual form of cash-rent is that at revenue rates, with, in some cases, a very light *málikána*. But in a few cases a true cash-rent in a lump sum is paid, and in these the average rate per *kachchá bigha* (⅓ of a *pakka bigah*), analysed according to soils, gave the results shown in the margin. The *batái*-paying tenants paid a proportion of the produce, varying from ⅕th (plus ⅘ths of the revenue) to one-half, both of the grain and straw. The most usual rent was found to be ⅓rd of the grain, plus ¼th of the straw, the *kamíns'* dues not being as a rule deducted before division, though they were so deducted in all other cases. The value of the rent of a *kachchá bigha* worked out to Rs. 2-3-6 on *cháhi* and As. 8-7 on *báráni*.

Soil.		Rs a. p.
Niái cháhi ...	...	3 12 0
Khális chahi	...	1 6 11
Dákar, Rausli	...	0 12 11
Bhur, Pílak	...	0 8 1
Mixed ...	...	0 14 10
General ...	...	0 15 1

Prices.

Prices in Kotla rule much as they do in Ludhiána, and now that the two towns are linked up by the railway, the prices in one may be taken as the prices in the other.

Section C.—Forests.

Forests. *Table 27 of Part B.*

The State contains no forest land except four small *birs* with a total area of 4,516 *kachcha bigáhs* or 940 acres. One of these, 1,399 *bighás* in area, belongs to the Nawáb and the remaining three to the collateral *jagírdárs*. They are preserved for fuel and grass and have been separately surveyed. In two of the *birs* there is a little cultivation, the tenants being entered as tenants-at-will.

Section D.—Mines and Mineral Resources.

Kankar.

The State contains no mines but there are *kankar* quarries in many of the villages. In Tahsil Máler Kotla, the best quarries are in villages Kup, Jitwálkalán, Máler Kotla, Haidarnagar, Hatwa, and Akbarpúra; in Tahsil Panjgiráin excellent *kankar* is obtained in Ratolán Adanwál, Sangála, and Lachchha Baddi. The *kankar* quarried in Kup is the best, but it is everywhere good. The supply is more than sufficient for the State roads, a certain amount being exported.

Sections E. & F.—Manufactures and Trade.

CHAP. II,G.

Means of Communication.

Hand-industries.

The hand-industries are the usual ones and there is little to note about them. The Hindu and Muhammadan ironsmiths of Máler Kotla and Rohera, however, make excellent household utensils and agricultural implements which are extensively exported to different parts of the Punjab. The *rath* made in Máler Kotla is also famous. Mention must be made of the Kotla paper which is largely exported. It is made by the people in their homes. No large factory for its manufacture exists.

Factories. *Table 28 of Part B.*

There is a small factory in the Town of Máler Kotla where all kinds of survey instruments are made. It employs about 20 hands. A new factory for cotton pressing, also in Máler Kotla commenced working in November of 1904. About 300 hands are employed in it. The wages given are for a man 6 annas, for a women 3 annas, and for a child 2 annas. The cotton is obtained for the most part in the State and is sent to Bombay and Karáchi for exportation. The cotton-seed is sold locally.

Commerce and Trade.

English cloth, salt, and lime are imported from Delhi, Amritsar, or Lahore; while grain, instruments of Survey, Kotla paper, and iron utensils are exported to Ludhiána, Bhatinda, Lahore and Patiála ; cotton is sent to Bombay or Karáchi.

Trade is confined to the town of Máler Kotla and the castes engaged in it are *Banias* and *Khojas*. All the exports and imports are conveyed by the Railway.

Section G.—Means of Communication.

Railways.

The Ludhiána-Dhuri-Jakhál Railway traverses the State with stations as Kup, Máler Kotla and Lachcha Baddi. The line was constructed in 1900, at the cost of the Jind and Máler Kotla Darbárs, the latter contributing $\frac{1}{5}$th of the cost, which amounted to 40 lakhs.

Roads.

The State has about 33 miles of metalled roads, the principal connecting Ludhiána with the town of Máler Kotla, whence it bifurcates, one branch running to Nábha *viâ* Bágrian, the other to Sangrúr through Dhuri. A short road, 2 miles long, connects Máler Kotla with Sherwáni Kot.

Unmetalled roads.

The chief unmetalled roads are as follows:—

			Miles.
From Máler Kotla to Panjgiráin	...	...	11
From Máler Kotla to Kanganwál	...	...	6
From Máler Kotla to Sarand	...	...	5
From Máler Kotla to Kup ...	...	...	6
From Kup to Panjgirain ...	...	...	12
From Kup to Sarand ...	...	...	4

CHAP. II, H.

Famine.

Serais and Rest-houses. *Table 29 of Part B.*

There are two *serais* in the State, one opposite the railway station of Máler Kotla and the other near the Moti Bazar in the city.

An excellent Dâk-Bungalow has been built near Máler Kotla Railway Station. There are also two State Bungalows, in Dhúler Kalán and Panjgiráin. They are used by the officials when on tour, but permission to use them can be obtained from the State.

Post Offices. *Table 31 of Part B.*

The State contains 5 post offices with a postal telegraph office at Máler Kotla (see table 31 of Part B). It has never had stamps of its own.

Section H.—Famine.

The State is practically secure from famine on account of the number of its wells and the nature of the soil. There was great scarcity of food, however, in 1896 owing to drought. The State instituted numerous relief-works, such as making roads in Máler Kotla and Jamálpura, repairing the Ludhiána road, and constructing new village tanks. Money was also distributed to the poor. About Rs. 20,000 were spent on the relief-works and 4,000 men were employed on them. Revenue was suspended to the extent of Rs. 33,000 though it was all collected the following year. Rs. 3,000 were given as *takavi* for the purchase of bullocks.

CHAPTER III.—ADMINISTRATIVE.

Section A.—General Administration and Administrative Divisions.

CHAP. III, A.

General Administration and Administrative Divisions.

Administration.

The present form of administration in the State has only been in existence since the end of 1905. The Nawáb is the head of the State and the following Departments are directly under him:—

Home and Foreign offices, Revenue and Finance Department, Military Department, and the Judicial.

Home and Foreign offices.

The Home and Foreign offices are in charge of the Home and Foreign Minister who is the most important official in the State, assisted by a Deputy. The Departments which make up the Home and Foreign offices are shewn below:—

Home Office.

Public Works Department.	Religion.
Medical Department.	Police.
Public Instruction.	Tasrífát.

Foreign Office.

Motamids and Vakils.	Correspondence with Government and Native States.
Railway.	

Most of these are described in the sections which follow, and only a few of them need be mentioned here.

Tasrífát.

A Superintendent with an Assistant is in charge of the Tasrífát or Kárkhánaját. They comprise:—

(*a*) the gardens with a *munsarim* in charge;

(*b*) the Tosha Khána with a *munsarim* and two assistants;

(*c*) the Farrásh Khána with a *munsarim*;

(*d*) the Mehmándárí and Inám Bakhshísh with a *munsarim* in charge;

(*e*) workshops and stores with a *munsarim*;

(*f*) State-stables under a *darogha*.

Motamids.

There is a *motamid* always in attendance on the Commissioner and Superintendent of the Jullunder Division, and a *vakíl* with the Deputy Commissioner of Ludhiána.

Revenue and Finance.

The Revenue and Financial Departments are under the Díwán. On the Revenue side the Názim is subordinate to the Díwán and under him are the Tahsíldárs. The Tahsíldárs have the powers of Assistant Collectors, 2nd Grade, and their appeals go to the Názim. Appeals from the Názim's decisions go to the Díwán. The Díwán only has power to suspend, appoint, or dismiss zaildars, lambardárs or kanúngos, or to confiscate *muáfis*. In such cases there is an appeal to the Nawáb.

CHAP. III. A.

General Administration and Administrative Divisions.

The Názim under the control of the Díwán is also in charge of the Court of Wards, Municipalities including sanitation and vaccination, excise and opium, Income-tax, and Registration. The two Tahsíldárs are Sub-Registrars.

Finance.

On the Financial side, the Bakhshí is under the Díwán. The Treasury, Accounts, Mint, Stamps, and pensions are in his charge.

Military.

The Military Department has as its head the Officer Commanding the State Forces. Under him are the Commandants of the Imperial Service Sappers and Miners, and of the irregular Cavalry, Artillery, and Military Police.

Judicial.

At the head of the Judicial Department is the Chief Judge who also exercises general control over the Jail, General Record office, Pleaders and Petition-writers. The subordinate Courts are described in the following section.

Tahsíls.

For administrative purposes the State is divided into two Tahsíls, Máler Kotla and Panjgiráin. Each is under a Tahsíldár, and the appointment of Naib-Tahsíldárs is under consideration. Panjgiráin only became a separate Tahsíl in 1903.

Thánas.

The latter forms a *thána,* and the former is divided into two *thánas,* Máler Kotla town and Saraud which includes all the villages of this Tahsíl. Saraud is about 5 miles from Máler Kotla.

Zails.

Each Tahsíl is divided into 7 *zails* :—

Zails.	Máler Kotla.	Number of villages.	Zails.	Panjgirain.	Number of villages.
1	Máler Kotla	3	1	Mithewál	3
2	Saraud	12	2	Kotála	9
3	Kishangarh Janúbi	10	3	Bhudan	10
4	Dahlíz Kalán	6	4	Hathan	13
5	Dhuler "	8	5	Badechha	7
6	Kanganwál	12	6	Jhuner	6
7	Rohera	12	7	Khurd	6

Lambardárs.

There are 159 *lambardárs* in Máler Kotla Tahsíl and 154 in Panjgiráin. These numbers include 3 *sufedposhes* in the first Tahsíl and 4 in the second.

The lambardári cess was fixed at 5 per cent. of the total demand. This gives an income of Rs. 15,000 from which both the *zaildárs* and *lambardárs* are paid. They do not receive a percentage of the revenue collected in their villages but get a fixed sum from the State which is increased or decreased according to the services performed by the holder of the appointment. The average pay of a *zaildár* is Rs. 120 *per annum* and of a *lambardár* Rs. 40.

CHAP. III, B.

Civil and Criminal Justice.

Revenue Staff.

The village revenue staff is shown in the following table:—

Tahsíl.	Office and Field Qanúngos.	Patwáris and Assistants.
Sadr	1	...
Máler Kotla Tahsíl	2	18
Panjgirain Tahsíl	2	19
Total	5	37

There are two grades of *patwáris*, receiving Rs. 12 and Rs. 10 respectively a month. An assistant *patwári* gets Rs. 7.

At settlememt, the Patwár cess was fixed at Rs. 3-9-4 per cent. of the total demand.

Extradition.

As regards extradition of criminals, there is an agreement between Máler Kotla State and the neighbouring States of Patiála, Jínd, Nábha, and Farídkot that all criminals of any description may be taken by Máler Kotla from the others to be tried for offences committed in its territory.

Section B.—Civil and Criminal Justice.

Justice.

The Indian Penal Code is enforced in its entirety, no substantial modifications having been introduced. In case of necessity slight changes are tolerated as the exigencies of a case may suggest, but such occasional changes do not form legal precedents in other, though similar, cases.

The British Code of Criminal Procedure has also been wholly adopted by the State. No substantial modifications have been introduced, though slight changes are tolerated as in the case of the Indian Penal Code.

The State contains the following Courts:—

Courts.

Ijlás-i-khás.

(1) The *ijlás-i-khás*, or Court of the Nawáb. This can scarcely be called a Court but appeals from the Chief Judge are heard in it and sentences passed in murder cases confirmed. If a sentence of death is passed, the sanction of the Commissioner of the Jullundur Division has to be obtained.

Court of Chief Judge.

(2) The Court of the Chief Judge who hears appeals from the *sadr adálat* in civil suits. The Chief Judge also hears criminal appeals from the Court of the Názim or District Magistrate and criminal cases beyond the powers of that Court at present, there is no Chief Judge, and his duties are being temporarily performed by the Díwán.

CHAP. III, C.

Land Revenue.

Sadr adálat.

(3) The *sadr adálat*, presided over by the *sadr adálatí* who hears all civil suits beyond the powers of the *adálatí* without limit as to value. All appeals from the *adálatí* and Munsifs go to him. He has no criminal jurisdiction.

Adálat.

(4) The *adálat* presided over by the *adálatí* who is a Munsif, 1st Grade. He hears original civil suits up to Rs. 300. He is also a Magistrate, 1st Class, and, in this capacity, is subordinate to the District Magistrate.

(5) The Court of the Názim who is the District Magistrate. He hears appeals from the subordinate Magistrates and original cases beyond their jurisdiction, he has power to impose sentences up to 7 years' imprisonment and Rs. 1,500 fine. Appeals from his decisions go straight to the Chief Judge.

(6) The Courts of the two Tahsíldárs who are Munsifs, 2nd Grade and Magistrates, 2nd Class. As Munsifs, they have only jurisdiction in civil suits up to a value of Rs. 150.

The number of cases, both civil and criminal, is very small, and there is no form of crime unusually common in the State.

Pleaders.

Permission has lately been given to Pleaders to practice in the State. At present three are two.

Section C.—Land Revenue.

Tenures and *dakhílkári* Tribes. *Assessment Rep.*, § 95.

Details of tenures and *dakhílkári* tribes with area held by each are given in Statement No. VI of the Assessment Report. Out of the 119 villages, 100 are held on *pattidári* tenure, 3 on pure *zamíndári*, leaving only 16 with *bhaiachára* tenure. This fact goes strongly against the assertions of the Pathán that the cultivators are all mere tenants. Several of the large villages are much older than the State itself.

Assessment Rep., § 26.

The average holdings of *dakhílkárs* with net income are as follows:—

Tribes.	Number of shares per holding.	Average holdings.	Gross income per Produce Estimate.	Deduct revenue and cesses paid.	Total net income.
Jats	2 to 1	81	177	55	122
Others ...	2 to 1	56	123	39	84

Thus each Jat sharer has about 65 and others about 42. The people in Kotla are on an average decidedly better off than in Kalsia and Pataudi, having much more land per share. Those with small holdings are however in straitened circumstances.

CHAP. III. C.
Land Revenue.

Cultivating occupancy. *Assessment Rep.*, § 27.

In the villages *dakhílkárs* cultivate 91 per cent. themselves; the remaining 9 per cent. being held by tenants-at-will paying rents in kind and cash at various rates. In Máler Kotla occupancy tenants paying in kind hold 46 per cent. and paying in cash 29 per cent. Tenants-at-will cultivate 11 per cent. on *batai*, and 1 per cent. on cash rents. The remaining 15 per cent. is held by *jágírdárs* and *muáfidárs* themselves.

Fiscal history. *Assessment Rep.*, § 11.

Before the State was granted to the Afgáns the revenue was taken in cash by appraisement, but Saikh Sadr-ud-dín, the original *jágírdár*, if he can be so called, began, it is said, to levy one-third of all corn and one-fourth of all straw including *chari*. This system was extended to the villages subsequently added to the State and continued in force up to 1864. The grain and fodder thus obtained were stored and sold at the chief's pleasure.

First cash assessment. *Assessment Rep.*, § 12.

The first cash assessment was made by Lála Kanhya Lál. He first settled the villages of his wards (the present Nawáb and his brother) in 1864-65, and then those belonging to Nawáb Sikandar Ali Khán at his own request. The demands fixed were based on the average collections of grain and fodder for 5 or 6 years converted into cash at prevailing prices. The leases were given for 5 years, *i.e.*, to 1870, and the demand being moderate was easily realised without causing any distress. The general rate in this assessment was 7 annas per *kachcha bigah*.

Assessment of Nawáb Sikandar Ali Khán. *Assessment Rep.*, § 13.

The second assessment was made by Nawáb Sikandar Ali Khán himself in 1870. A survey and Record of Rights were also begun for the Nawáb's villages, but he died before their completion. The leases were calculated in a very crude way.

The villagers were asked what area of cultivated land they possessed, with the details of its soils and cultivation. Rates were then fixed on the yield and thus the demand of each village was arrived at. These leases ran on till 1879, and as the revenue was generally moderate it was easily realised. The unfinished Settlement Records were completed under Mr. Heath, Superintendent, during the minority of Nawáb Ibrahím Ali Khán.

The assessment of 1880. *Assessment Rep.*, § 15.

The third assessment was made by the present Nawáb in 1879-80, through the Tahsíldárs. The amount of each lease was determined according to the offers made by contractors or bids by money-lenders. As a rule this assessment was naturally a full one and too heavy in some villages, the general rate on cultivation being 12 annas 7 pies per *kachcha bigah*. The demand was however realised in full though it caused distress, especially in the over-assessed villages, in bad years. The term of these leases expired in Kharíf 1890. The leases for the Rabi of 1891 were determined by bids as usual, and as the harvest was an exceptionally good one, the demand was raised by about 33 per cent. This was hard on the people as no allowance was made for the preceding

CHAP. III, C.

Land Revenue.

Kharíf, which had been a very bad one, though its revenue had been realised in full.

Leases of K. S. Ináyat Ali's villages. *Assessment Rep.*, § 15.

The leases given by Kanhaya Lál in Khán Sáhib Ináyat Ali Khán's villages ran on to 1877, when fresh leases were given by Mendhu Lál, an official of the Khán. The demand under these was more than double that of Kanhaya Lál's, the general rate on cultivation being 14 annas 4 pies per *kachcha bigah*, and the revenue continued to be taken under these leases.

This demand was excessive, and unequally distributed though, if properly distributed, it could have been paid, with some remissions in bad seasons. Several villages were much over-assessed and badly off, Ináyat Ali Khán's villages being the only ones in which small unrealised balances have occasionally accrued.

K. S. Ghulám Muhammad Khán's villages. *Assessment Rep.*, § 16.

The villages originally held by Ghulám Muhammad Khán, before he received a share of Nawáb Sikandar Ali Khán's portion, had never been properly assessed. His system of levying revenue was not uniform; in some villages he continued to take *batái*, in others he gave annual leases or for a term of years, either to the cultivators or to contractors.

The other villages, which came into his possession on the demise of the late Nawáb, had been assessed by the latter in 1870, and some of them continued to pay this revenue up to 1887, when *batái* was again introduced by Ghulam Muhammad Khán's sons.

The general rates on cultivation paid by these villages in 1887 were :—

	Rs.	a.	p.
Nawáb's villages	0	12	7
Khán Sáhib Ináyat Ali Khán's	0	14	4
Do. Ahsan Ali Khán's	0	14	7
Do. Bakar Ali Khán's	0	11	6
Do. Muhammad Ali Khán's	0	11	3
Do. Zulfiqár Ali Khán's	1	0	3
Do. Yusaf Ali Khán's	0	11	0
General rate	0	13	1

From these it is clear that the villages of Khán Sáhib Ahsan Ali and Zulfiqár Ali were over-assessed while the rest were comparatively well off.

Other Jágirdárs. *Assessment Rep.*, § 17.

In the villages of *jagírdárs* other than Khawánins, the revenue had usually been taken in kind for a long period. In some cases, especially where the State held a share, leases or contracts had been given, for amounts determined by the bids of contractors.

Commencement of Settlement operations.

The operations of the last Settlement commenced in Máler Kotla in September 1887, when Muhammad Yamín, a Qánúngo from Gurgáon, was appointed Settlement Tahsíldár under the Superintendent of the State. They were at first confined to the villages of the Nawáb and the minor sons of Ghulám Muhammad Khán who

CHAP. III, C.

Land Revenue.

Settlement Rep., § 18.

were under the Court of Wards. The six months from September 1st, 1887 to 1st March, 1888, were spent in instructing the old Hindi-knowing *patwáris* and getting copies of the existing field maps and registers for crop inspection purposes. In November, 1887, the Settlement operations were extended to the whole State, the power of the assignees being withdrawn by Government. In March, 1888, the first crop inspection was made in all the villages which had field maps, except those of Khán Sáhib Ináyat Ali Khán who refused to make over his *patwáris* and papers to the Superintendent. In most villages the entries in the field register were checked by the Settlement Tahsildár.

In April Mr. Isa Chandú Lall was placed on special duty as Personal Assistant to the Commissioner of Delhi and directed to supervise the Settlement, working through the Manager of the State, without direct interference. On his first visit to Kotla at the end of May to check the crop inspection entries and see the old records, Mr. I. C. Lall was much hampered and opposed by the State officials, and found that hardly anything had been done during the previous nine months. On reporting this to the Commissioner he was placed in charge of the Settlement as Settlement Officer from 8th June, 1888.

Previous records and field staff.

Settlement Rep., § 19.

The first Record of Rights was begun for the *Khálsa* villages by Nawáb Sikandar Ali Khán in 1870, but he died before their completion and they were gradually completed under Mr. Heath, the Superintendent, during the minority of Nawáb Ibrahim Ali Khán. Most of these perished in a conflagration at the office, but they were gradually replaced in 1884 and afterwards, by field maps and *khasras* made by the State *amins*, without check or supervision by the Revenue officials. The maps were drawn by sight and not to scale, and the entries in the Register being unattested were of hardly any value. Moreover, 19 villages had never been surveyed, and there were no records relating to them.

The old *patwáris* were mostly ignorant Hindi-writing Banias whose only duty was to help in the realisation of the revenue, whether paid in cash or in kind. They were very badly paid, from Rs. 5 *per mensem* downwards and some in the *jagirdárs'* villages only received Re. 1 or Re. 1-8 *per mensem*, but as they generally kept shops or went in for money-lending, they were fairly well off. The *patwáris* were supervised by *amins* who were fairly well up in the old methods, but could not master the new system of survey.

Constitution of *patwari* circles and arrangements of staff.

Settlement Rep., § 20.

In June, 1888, the whole State, except Ináyat Ali Khán's villages, was divided into 37 *patwári* circles, and three grades of *patwáris* introduced on Rs. 9, Rs. 7 and Rs. 5 per mensem, respectively. The worthless Hindi *khwans* who had made no improvement whatever during the previous nine months were removed and replaced by Urdu-knowing relatives where possible. A great many outsiders had also to be taken in, but care was exercised that all

CHAP. III. C.

Land Revenue.

the classes of people were fairly represented as far as practicable. Nine *munsarims* were appointed out of the State *amíns* and *patwári* teachers with two outsiders, on Rs. 20 and Rs. 15 *per mensem.*

Preparation of materials for crop inspection. *Settlement Rep.*, § 21.

The staff thus constituted was then divided into several groups and set on to survey the nineteen villages which had no field maps, with the double object of teaching them the new system of surveying by squares, as well as to get the maps and *khasras* ready to ensure the Rabi crop inspection for the whole State. By means of hard working fifteen of these villages (some of them very large ones) were surveyed by 1st October, when the crop inspection was made for 115 villages, the remaining four being too large to be finished in that time. In September Khán Sáhib Ináyat Ali Khán also made over all his papers and *patwári* staff to the Settlement Department, and a revision of the *patwári* circles resulted in 50 circles and 55 *patwárís*, their pay being increased in three grades to Rs. 12, Rs. 10 and Rs. 8 *per mensem*, respectively, in November, 1888. After the crop inspection of Kharíf, 1888, the Settlement staff made *shajra nasabs* and an elementary *jamabandi* to form the basis of the Records of Rights, followed by the Rabi, 1889, crop inspection in March.

Enquiry into rights and status of cultivators. *Settlement Rep.*, § 22.

The most important point for decision, prior to the preparation of the Record of Rights, was the rights and status of the cultivators, about which there was a bitter dispute between the Patháns and Jats. For this purpose Mr. Robertson, Assistant Commissioner, was specially deputed by Government in the cold weather of 1888-89. After a detailed and careful enquiry in each village Mr. Robertson recorded his findings, which were accepted by Government, and entries were made in the Records of Rights accordingly. The general result of this enquiry was that the cultivators, with a few exceptions, were found to possess most of the rights belonging to owners in British territory, with the important exception of the rights of alienation. This peculiar status has been expressed by the term *dakhílkár*, which thus in Máler Kotla bears a meaning different to what it expresses elsewhere. This term has therefore been applied to the cultivators in the Record of Rights. This enquiry settled the points chiefly in dispute, *e.g.*, rights to trees, waste, wood, etc.

Field survey. *Settlement Rep.*, § 23.

Survey work properly commenced in April, 1889, and was completed in October, 1890, all the 119 villages being measured and their *khasrás* written up in a year and 7 months, including the crop inspections regularly made in March and October. The results of Mr. Robertson's enquiry were authoritatively communicated in September, 1889, and as in all the papers written up between April and September, the cultivators had been entered up as tenants, these had to be entirely revised and written up again. In the meantime the *munsarims* were found incompetent and the most worthless of them were replaced by *patwáris* of the first grade from Ferozepore, who gave great satisfaction.

CAHP. III. C.

Land Revenue.

Record of Rights. *Settlement Rep.*, § 24.

In October 1890, the crop inspection was made for the first time for all the villages. It was based on the new maps and *khasrás*, and was therefore more accurate. The Record of Rights was then completed, and the mistakes found in it corrected. In his inspections in the cold weather of 1890-91, the Settlement Officer found the soil entries often very incorrect, and ordered a general revision, which occupied nearly 6 months. Even these revised entries were not always correct, and they caused a great deal of trouble in the internal distribution of revenue.

Its contents. *Settlement Rep.*, § 25.

The Record of Rights, prepared for Máler Kotla, contains the following papers:—

1. List of contents.
2. Genealogical tree of *dakhílkárs.*
3. Field survey map.
4. Field register.
5. *Khatauni* with alphabetical index.
6. Statement of rights in wells.
7. List of rents.
8. List of Revenue assignments.
9. Tender of engagement.
10. Village administration paper.
11. Final *rubkár.*

All these papers were carefully prepared, and with the exception of the field book, and consequently the *khataunis* also, were as correct as could be expected. The field book contained errors of area, and in some places of entries also, but as these were only detected when the records came to be signed it was too late to get them corrected; nor could the corrections be made except at crop inspections, there being no reliable previous records. On the whole, considering the difficulties, the Record of Rights was fairly well prepared. The original copy was so cut up on account of revisions of entries that two fair copies had to be made, one for the office and the other for the *patwáris.* Both were well bound, and in the former every paper was signed by the Settlement Collector and each volume by the Superintendent on behalf of the Nawáb.

Detailed *jamabandi.*

A detailed *jamabandi* based on the new records was prepared for each village in the form prescribed by the Revenue Circulars, with certain alterations necessitated by the peculiar circumstances of the State. This was filed separately from the Settlement Record on account of its bulk.

Fiscal results. *Assessment. Rep.*, §§ 37-38.

The Settlement Officer calculated the total land revenue demand of the State, including the *jágírs*, to be Rs. 3,69,000 in 1891, though he considered that the *jágírdárs'* incomes had probably been overstated, and that in the absence of reliable data for the *batái*-paying villages no estimate, even approximately correct, of the actual demand could be made. That mismanagement had diminished the State's resources appeared from the fact that in 100 villages the well-irrigated area had decreased from 68,431 to 54,621 *bighas* in 1891. Applying the rates of yield and prices sanctioned to the results of 3 years crop inspections a total demand of Rs. 3,24,165 was arrived at.

Produce Estimate.

CHAP. III. C.

Land Revenue.

Assessment Rep., § 40.

The following revenue rates were proposed :—

1	2	3	4 Rates with cesses in British circle (Tihára).	5 Increase per cent. of column 3 over column 4.
		Rs. a. p.	Rs. a. p.	
.—IRRIGATED	(a) Niái	2 4 0	1 0 0	125
	(b) Khális	1 8 0	0 11 0	117
II.—UNIRRIGATED ...	(c) Dákar, Rausli ...	0 10 3	0 5 0	105
	(d) Bhur, Pilak ...	0 6 0	0 3 0	100
	Rate on cultivation ...	0 12 5	...	...

The revenue resulting from these was Rs. 3,48,000, nearly 24,000 or 7 per cent. above that given by the produce estimate, and involving a decrease of 6 per cent. on the former revenue. The old rate on cultivation in the Nawáb's villages was 12 annas 7 pies, being 1·3 per cent. higher than the general rate proposed. The proposed rates were from 100 to 125 per cent. higher than those with cesses in the corresponding British circle; that is, if the rates of the Ludhiána circle be applied the revenue demand of Kotla would be less than half that now proposed. Four-fifths[1] of the net assets would have given a total of Rs. 2,86,776 and four-fifths of the cash rents one of Rs. 3,40,279, so that the revenue proposed was 21 and 2 per cent. higher than that given by the net assets and cash rent tests respectively. In proposing his rates the Settlement Officer was guided by the condition of the villages under the old demand and by the *batái* statistics, where trustworthy. In some villages his rates only gave a revenue amounting to 95 or even 80 per cent. of the *batái* collections. This reduction was justified by the fall in prices which had occurred between 1879 and 1880 and which is illustrated by the marginal figures. The villages of the Nawáb were about the lowest assessed, and in them the leases were given in 1879-80. These leases were determined by offers of contractors and bids of money-lenders for the year, and were therefore

Assessment Rep., § 39.

Assessment Rep., § 41.

Assessment Rep., § 40.

Staple.	Price in 1879-80.	Average price for 10 years, 1880—89.	Fall per cent. since 1879—80.
Wheat	22	25	14
Barley	29	36	24
Gram	27	32	19
Maize	29	32	10
Jowár	30	35	17
Cotton	9	10	10

(1) The demand for revenue and cesses in Kotla was fixed at one-third of the gross produce in grain and one-fourth of the fodder, with the customary *zabti* rates, or a "fair equivalent in cash."

CHAP. III. C.
Land Revenue
Assessment Rep. § 43.

the cash equivalents of the Nawáb's share of the produce calculated on that year's prices, less the contractor's profits. The rates brought out a reduction of only 1·3 per cent. in the Nawáb's villages. In the *jágírs* the decrease was greater, as the *jágírdárs* had been exacting an unduly heavy revenue and thereby causing much discontent for some years past.

The revenue actually announced amounted to Rs. 3,49,600. In January 1892, the Commissioner raised the demand of several villages on appeal by *jágírdárs* or on revision, the total increase thus made being Rs. 10,208. Thus the total demand amounted to Rs. 3,59,808, giving a general rate of a fraction over 12 as. 10 p. per *bigha* as compared with 12 as. 5 p. proposed in the Assessment Report. If the total previous demand of the State be taken at Rs. 3,69,000, the Settlement brought about a decrease of about 2·5 per cent. only. Below is a comparison statement: –

	Rs.
Revenue demand of present assessment*	3,59,808
Revenue by produce estimate[1]	3,24,165
Revenue by 80 per cent. of net assets	2,86,776
Revenue by 80 per cent. of cash rents	3,40,279

Settlement Rep § 62.

The cesses shown in the margin were sanctioned in 1889. This distribution is only for accounts purposes and for realization of the cesses from assignees of revenue. In the cultivators' *khataunis* the total demand of land revenue and cesses was entered in lump sums.

	Rs.	a.	p.	
Local rate ..	10	6	8	per cent.
Patwár cess ...	3	9	4	
Lambardári cess	5	0	0	

The net results were :—

	Rs.
Land revenue	3,02,239
Cesses	57,569
Total	3,59,808

Dates of instalments. *Assessment Rep.* § 45.

The former dates of instalment were two for each harvest, *viz.*:—

Kharíf ...	15th November. 15th December.
Rabi ...	15th May. 15th June.

For the future it was decided to adopt one for each, *viz.*, 15th December for the Kharíf, and 15th June for the Rabi as in Kalsia and Pataudi.

Settlement Rep § 64.

In Máler Kotla the villagers, in all cases, fixed the proportion, the rates on each kind of soil should bear to one another, and these proportions were often very fair. Soil rates for each village were then worked out according to these proportions, and the demand for each holding made out on the soil of each kind possessed by the holders. This of course resulted in an increase on holdings which

(1) At ⅓ of grain and ¼ fodder

CHAP. III, C.

Land Revenue.

Settlement Rep. § 64.

paid too little before, and 45 appeals were preferred and decided by the Settlement Officer on the spot, but the people did not appear at all satisfied. Each sharer wanted to adopt the method which would benefit him most. In several of these appeals the Settlement Collector had to abandon the distinction of soils, except that between irrigated and unirrigated, as he found the soil entries very inaccurate. The greatest trouble was, however, experienced in assessing the well-irrigated land. Many wells were not fully used during the Settlement period, and the area irrigated from them during the two harvests succeeding the announcement of revenues was greatly in excess of that recorded in the papers. In such cases the average area was determined from crop inspections. The best method, the Settlement Collector found, for distributing the water-rate was to fix lump sums on each well, calculated on the average area irrigated as by crop inspections. The *dakhílkárs* of Máler Kotla were, however, averse to this, though it was enforced in some of the appealed cases, where no other decision was acceptable; and if in the future a revision of the *bách* be found necessary, more stress should be laid on this.

Revenue assignments in Máler Kotla. *Settlement Rep.* § 67.

There are three kinds of revenue assignments in Máler Kotla:—

(*a*) Those belonging to relatives and collaterals of the chief, who are descendants of Nawáb Jamál Khán.

(*b*) Those belonging to other Patháns who are descendants of the followers of the founder of the State.

(*c*) Petty assignments made by the Nawáb, or any of the above-mentioned *jágírdárs*, out of their villages, for the maintenance of institutions, rewards for service, charity, and other similar reasons.

(*d*) The collaterals have by the existing custom been co-sharers of the State with the Nawáb, and if a Nawáb or collateral dies childless his share (in the case of the Nawáb, his private share) is divided among all the co-sharers according to their shares. Similarly, if any *jágírdár* of class (*b*) dies without heirs his share lapses to the descendants of Jamál Khán. These *jágírdárs* had hitherto paid a contribution of 10 per cent. out of their incomes towards the administration of the State, and the cesses they levied from the cultivators were retained by them. Under the new settlement cesses amounting to 19 per cent. of the land revenue are credited to the State treasury throughout the State, and the contribution of 10 per cent. is maintained as before.

(*b*) Revenue assignments of the second class are hereditary, but in the event of the death of a *jágirdár* without heirs, the share lapses to the descendants of Jamál Khán. These *jágírdárs* paid lump sums as service commutation in varying amounts up to Rs. 57-2-8 per cent. on their incomes. In July 1891, they were put on the same footing as collaterals and now pay 10 per cent. of their revenue as contribution, in addition to cesses.

CHAP. III. C.

Land Revenue.

Settlement Rep. § 67.

(*c*) The assignments of the third class have been made at different times and for various purposes. Some date from the time of the Emperors, others have been granted by the chiefs and *jágírdárs* of Máler Kotla. All these were enquired into, and brief particulars entered in registers, with the opinions of the Superintendents and Settlement Officers. Under the Commissioner's orders, assignments for institutions were maintained during their existence, those for services were maintained as long as the services are rendered or during the lifetime of the assignee; grants for charity or as favour were resumed in full, or released at half rates for limited terms only. No grant was recognised as perpetual, and grants made by *jágírdárs* were struck off the register, as the State did not recognise them. The result of these orders was a reduction of such assignments from Rs. 16,023 to Rs. 10,261. The distribution of the existing demand for land revenue is :—

	Rs.
Nawáb	1,07,496
Collaterals	1,49,106
Other *jágírdárs*	35,375
Muáfis	10,262
Total	3,02,239

Rights to waste. *Settlement Rep.* § 73.

In Máler Kotla *dakhílkárs* have the right to retain the waste in their possession, and have full rights of grazing and grass cutting, as well as to cut brushwood and thorns and to lop branches over all the waste lands in their village. Such waste has been recorded as common village property.

They may not, however, break up waste without permission.

Rights to trees and wood. *Settlement Rep.* § 74.

The question of rights to trees and wood was one of the most disputed ones both in Máler Kotla and Kalsia. The State and *jágirdárs* claimed a share in all trees whether growing in cultivated or waste lands of the village.

No tree could be cut without permission, and permission could not be obtained without paying the underlings something. Thus when wood was most needed for agricultural implements or re-roofing houses, the agriculturists preferred buying it to all the vexations and extortions connected with cutting it on their own lands. This has now been decided as follows, and entries made in the Record of Rights accordingly.

In Máler Kotla *dakhílkárs* have the right to cut all trees growing in the village site, round wells, in cultivated fields and in the cultivated area generally, except *shisham*, *pipal* and *barota* trees. *Shisham* trees may be taken for agricultural implements and carts on permission. All trees of whatever kind specially planted, grown or tended, by *dakhílkárs* in groves, gardens or their cultivated lands, are the property of such *dakhílkárs*.

CHAP. III, C.

Land Revenue.

Settlement Rep. § 74.

The Nawáb or *jágírdár* is entitled to take wood from the village waste on payment of half its market value and is entitled to half the price of all wood sold from the waste by permission.

The Nawáb or *jágírdár* is also entitled to take dry *pípal* and *barota* trees only and *shisham* trees not specially planted, grown or tended by cultivators.

To make this order clearer and to encourage tree planting in pieces of village waste the Commissioner in January, 1892, directed that in villages where there is a patch of waste exceeding 300 *kachcha bighas*, the State or *jágírdár* will receive possession of one-third of such patch for the cultivation of trees, and shall have no further claim on that patch.

On smaller patches the claim of the State or *jágírdár* is fixed at 15 *kachcha* maunds of fuel per *kachcha bigha* and one beam of timber 12 feet in length for each village in which the aggregate of small patches of waste is not less than 100 *kachcha bighas*. If less than that area no beam will be due.

Rights of succession. *Settlement Rep.* § 75.

The rights of succession in case of *dakhílkárs* in Máler Kotla as decided by Mr. Robertson are:—

This (*dakhílkár's*) right is hereditary and any male heir lineally descended in the male line from any *dakhílkár*, if he be the nearest male heir of the last *dakhílkár*, can succeed to the status of *dakhílkár* in respect of the lands of such *dakhílkár*. In case there be no direct heirs in the male line, any collateral can succeed, provided he be descended from the same grandfather as the last *dakhílkár* or any previous *dakhílkár* who was in possession of the land as *dakhílkár*.

In case of failure of both direct and collateral heirs, the Nawáb or *jágírdár* can arrange for the cultivation of such land, but it must be first offered for cultivation to the other *dakhílkárs* of the village.

Rights of alienation. *Settlement Rep.* § 76.

In Máler Kotla *dakhílkár* cultivators have no power to alienate their lands by sale, mortgage, or gift, without permission.

This is supplemented by Commissioner's order of 7th May 1890, by which transfers to agriculturists may generally be sanctioned unless there are special reasons against; transfers to the professional money-lending class to be disallowed.

Working of Settlement.

In spite of the heavy demand, as compared with British Standards, there is no difficulty in collecting the revenue. Remissions have never been found necessary though suspensions have occasionally been granted.

Section D.—Miscellaneous Revenue.

CHAP. III, D.

Miscellaneous Revenue.

Excise Department. Country spirit.

Directly under the Názim there is a Superintendent of Excise and Opium with a Dárogha under him.

Country spirit is made in Máler Kotla by the ordinary still. The contract is leased by auction to the highest bidder.

The retail contracts are sold by the Názim who receives applications for retail sale which he disposes of as he thinks fit.

There are 6 shops for retail sale in *thána* Panjgiráin and 7 in *thána* Saraud :—

Thána Saraud.	*Thána Panjgiráin.*
1. Kanganwál.	1. Panjgiráin.
2. Jandyáli.	2. Mithewál.
3. Balewál.	3. Kothála.
4. Dahlíz Khurd.	4. Bhudán.
5. Dhuler Kalán.	5. Ghanaur Kalán.
6. Binjoki Kalán.	6. Játi Mazra.
7. Saraud.	

There is one in Máler Kotla town.

European liquor is sold by two license-holders in Máler Kotla town.

Drugs.

Poppy is cultivated to some extent in the State, and opium is imported under the British rules from Ajmer and Málwa. The contract for vend of opium is sold by auction annually, the contractor being authorized to lease the contracts for retail sale.

The following are the shops for retail sale of opium and drugs :—

Thána Saraud.	*Thána Panjgiráin.*
1. Kanganwál.	1. Panjgiráin.
2. Rohira.	2. Mithewál.
3. Kup.	3. Khurd.
4. Jandyáli Khurd.	4. Chohána Khurd.
5. Phalaund Kalán.	5. Kothála.
6. Maherna Khurd.	6. Bhúdán.
7. Dhuler Kalán.	7. Muhammadpur.
8. Bhaini Kalán.	8. Dugni.
	9. Badechha.
	10. Chhung.
	11. Ghanaur Kalán.
	12. Lachchhe Baddi.

In Máler Kotla town there are two shops.

Sometimes opium and drug licenses are sold together, but they are never sold jointly with those for the vend of country spirit.

The income to the State from excise and opium averages Rs. 16,000 a year.

Stamps.

The stamp office is in charge of the Bakhshí under whose supervision the values of the stamps are impressed on the printed

CHAP III, D.

Miscellaneous Revenue.

form. No distinction is made between judicial and non-judicial stamps. The values of the stamps in use are :—

Annas 1, 2, 4, 8, and Rs. 1, 2, 4, 5, 6, 7, 8, 9, 10, 20, 30, 40, 50, 60 70, 80, 90, and 100.

Stamps.

The stamp sheets are printed in a private press at Máler Kotla, but the value of the stamp is not printed, but impressed by the state Bakhshí. Stamps are only sold at the State treasury. The British Stamp Act and the Court-fees Act are in force in their entirety in the State.

The average income from stamps per annum is Rs. 13,000.

Registration.

The Indian Registration Act is enforced without modification. The Názim is Registrar and is posted at Máler Kotla. The Tahsíldárs are Sub-Registrars in their own Tahsíls.

Year.	Amount.
	Rs.
1900-01	281
1901-02	222
1902-03	308
1903-04	262
Average ...	268

The income from registration for the years 1900-01 to 1903-04 are shown in the margin.

The Nazim is in charge of Income-Tax Assessments. All incomes from Rs. 100 upwards are liable to be taxed. The income during the years 1900-01 to 1903-04 is shown below :—

Year.	INCOMES BELOW Rs. 500.		INCOMES BETWEEN Rs. 500 AND Rs. 1,000.		Total amount.
	Number of assesses.	Amount paid.	Number of assesses.	Amount paid.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1900-01	410	1,714	18	308	2,022
1901-02	422	1,805	18	308	2,113
1902-03	448	1,792	18	308	2,100
1903-04	456	1,831	18	308	2,139

No income-tax was paid by the State officials till the year 1904-05. In that year the collections amounted to Rs. 5,300, more than double the former collections. The rate charged on all incomes is 2½ per cent.

Local Cesses.

At Settlement the total demand was first assessed, and then divided as under :—

	Rs.	a.	p.	
Land Revenue	84	0	0	per cent.
Local Rate	10	6	8	„
Patwárí Cess	3	9	4	„
Lambardárí Cess	5	0	0	„

CHAP. III, E.

Local and Municipal Government

Local Cesses.

The net results were: –

	Rs	a.	p.
Land Revenue	3,02,238	12	0
Cesses	57,569	4	0
Total	3,59,808	0	0

The cesses in 1904-05 were as follows:—

	Rs.	a.	p.
Local Rate	31,269	8	10
Patwárí Fund	10,901	1	4
Lambardárí Fund	15,009	0	0
Total	57,179	10	2

Schools, Hospitals, and Roads are maintained from the local rate.

Miscellaneous Revenue.

Miscellanous revenue to the amount of Rs. 1,000 is collected from the State *Birs* and gardens. The Mint, which is let out on contract, yields an average revenue of Rs. 600 a year. The State Rupee, formerly worth annas 12, is now worth only annas 8 in British currency. The Rupee is the only coin minted. Other miscellanous revenue amounts to Rs 3,000.

Railway

The State gets an annual income of Rs. 30,000 from the Ludhiána-Dhurí-Jakhal Railway, in which it is interested to the extent of eight lakhs. The income is, however, rapidly increasing.

The total income of the State from all sources except *octroi* is about Rs. 4,40,000. This includes Rs. 1,70,000 enjoyed by Jagírdárs and Muafidárs.

Section E.—Local and Municipal Government.

The State has no District or Local Board. There are, however, three Municipalities constituted in 1905, namely, Máler Kotla, Killa Rahmatgarh, and Jamálpúra. The two latter are large villages near Máler Kotla, and are controlled by the same Committee.

Though these places have only been lately constituted Municipalities, *octroi* has been collected for many years, and no other tax has yet been imposed. The Názim is President of the Municipal Committee, which consists of 20 members, all nominated by the State.

The average income from octroi for the years 1900-01 to 1903-04 was Rs. 23,960. This gives an incidence of taxation of one rupee a head of the population. All the police in the State with the sanitation and vaccination staffs are paid from Municipal

CHAP. III. G.
Army.

Funds. The octroi staff consists of a Superintendent with a *munsarim* and several subordinates. They have charge of the three Municipalities.

	Rs.
Octroi Establishment ...	2,789
Police	14,203
Sanitation and Vaccination ...	3,244
Paving Roads	4,088
Miscellenous	1,631
Total	25,955

The expenditxre for the year 1903 is shown in the margin. The income of that year was Rs. 26,805.

Section F.—Public Works.

The Public Works Department is under the Home Minister, and is in charge of a Superintendent. For the State Roads there is a sub-overseer and a *darogha*, and for the Buildings, a sub-overseer, draughtsman, and two *mistris*. The expenditure on roads is paid from the Local Rate, but the buildings are constructed from State Funds.

Section G.—Army.

The Máler Kotla State Forces comprise the Imperial Service Sappers and Miners, Irregular Cavalry and Artillery with the Military Police.

Imperial Service Sappers and Miners.

The Imperial Service Sappers were raised in June 1894, and are under the Officer Commanding the State Forces. The Corps is maintained at a strength of 177, including officers and men; and it is proposed to raise a body of mounted Sappers to be attached to it. There is a well-equipped band of 44 men under an experienced European Bandmaster.

During the comparatively short time of its existence the Máler Kotla Imperial Service Sappers have had a notable record of good service in the field, inasmuch as they have been twice on active service. The Tirah Expedition of 1897-98 was the first occasion on which they were engaged. They did much useful work in the snows of the winter of that year in the way of making bridges, roads, and trenches. While at work, they had several engagements with the enemy. The services rendered by the body during the campaign were acknowledged in an appreciative letter by the Government of India to the Ruling Chief; and, in recognition thereof, its Commandding Officer received the honorary title of Bahadur.

Tírah expedition.

China.

The second occasion on which the corps went on active service was the China Expedition of 1900. It remained in China nearly a year. On its return, the Commanding Officer was made a Companion of the Indian Empire, and the Superintendent of the State, the Nawáb of Lohárú, a Knight of the same order.

CHAP. III, H.

Police and Jials.

It is to be noted that the Máler Kotla Imperial Service Sappers is the only body among the Imperial Service Troops of the Punjab that has been twice on active service. Its efficiency is recognized on all hands. The cantonments lie to the west of Kila Rahmatgarh.

Cavalry.

The State Cavalry is an irregular body of troops, consisting or 50 men and officers, all told. It is well trained and is mainly used as an escort to His Highness the Nawáb, and the Regent.

Artillery.

The State Artillery comprises 35 men and officers with 9 guns, two of which only are serviceable. The guns are used for firing salutes on ceremonial occasion.

Military Police.

There are three companies of Military Police, each company being composed of 76 men and officers. The full strength is 231 men. Only one company is at Headquarters at one time, the others being allowed to stay at their homes. Each man must do three months training a year, but can be called to attend at any time. They are mainly used as guards at the residence of the Nawáb and have nothing to do with the Civil Police.

Section H.—Police and Jails.

Police.

The Superintendent of Police is subordinate to the Home Minister in all mattters except drill and discipline, in which he is subordinate to the Officer Commanding the State forces. The force consists of an Inspector, a Court Inspector, 3 Sub-Inspectors, 3 first 3 second, and 11 third grade Sergeants, a tracker, a female searcher, and 82 constables with 7 mounted constables, giving a total of 113. Men are sent to attend the Training School at Phillaur. The police are paid from Municipal Funds. In addition to the regular police, there are 90 *chaukidars* in the villages, each paid Rs. 4 a month out of the *chaukidara* fund. There are three *Thánás*, Máler Kotla, Panjgiráin, and araud. There is a cattle-pound at each *Thana*.

Jail.

The Jail at Máler Kotla contains accommodation for 50 male and 20 female prisoners, but the convicts never approach that number.

It is under the control of the Chief Judge and in charge of the Medical Officer of the State as Superintendent. He has under him a Jailor and an Assistant Jailor.

All prisoners, both civil and criminal, including those undergoing life sentences are confined in the Jail. Prisoners undergoing trial are also detained in it.

Darris, chiks, and shoes are manufactured in the Jail. The annual income amounts to Rs. 6,524, while the expenditure is Rs. 8,723.

CHAP. III. I.

Section I.—Education and Literacy.

Education and Literacy.

Literacy.

Hindus	4·7	per cent.
Sikhs	3·9	"
Jains	18·5	"
Muhammadans	1·8	"
All Religions	3·9	"

The percentage of literate persons amongst Hindús, Sikhs, Jains, and Muhammadans at the last census is shewn in the margin. It will be observed that the percentage is by far the highest amongst the Jains and lowest amongst the Muhammadans. The following table shews the number of males and females who were recorded as literate at the last census :—

Detail	Number	Per cent.
Males	2,900	6·9
Females	82	·2
Total	2,982	3·9

Schools.

The only school in the State is the Anglo-Vernacular Diamond Jubilee High School at Máler Kotla, which has a staff of 11, including a head-master, second and third masters, a head *maulavi* and second oriental teacher. Each mosque in the town has a *maktab* attached to it, and there are also 4 or 5 *páthshálas.* These, however, are not inspected or controlled in any way.

Of the 7 schools established by Nawáb Ibrahím Ali Khán, those at Sherwáni Kot, Panjgiráin and Khurd lasted until 1903, when they were closed.

There are about 200 pupils in the High School. English, Arabic, and Persian are taught.

Maktabs.

There are 141 boys and 53 girls attending the *maktabs* of Máler Kotla. Both Persian and Arabic are taught with a little Arithmetic in some of them.

Páthshálas.

In the *Páthshálas*, Hindí, Shástri and Arithmetic are taught. There is one where girls only are educated. It is called the *Arya Kanya Páthshálá.* At present 25 girls attend it. They are taught cooking, sewing, and embroidery besides reading and writing.

Section J.—Medical.

Medical Staff.

The Medical Department of the State is under the control of the Home Minister and consists of :—

(1) A Civil Assistant Surgeon who is State Medical Officer and holds charge of the Civil Hospital at *Sadr*.

(2) A Hospital Assistant who is in charge of the *Sadr* Hospital under the State Medical Officer.

CHAP. III, J.

Medical.

(3) A Hospital Assistant who is in charge of the Military Hospital.

(4) A Hospital Assistant in charge of the Hospital at Panjgiráin.

Sadr Hospital.

The Staff of the *Sadr* hospital comprises the State Medical Officer, an Hospital Assistant, a clerk, a compounder and a dresser with other necessary subordinates.

Out-door patients averaged during the first quarter of 1904, 148 a day. For in-door patients the average daily attendance in the same period was 3·2; while 250 surgical operations were performed besides reports on medico-legal cases and post-mortems examination.

Dár-.

Besides the Civil Hospital at Máler Kotla there is a private dispensary (Dár-ul-shafá) for the Nawáb and his family in charge of a *hakím.*

Hakims or Baids.

Several *baids*, *jarrahs*, and *hakims* practice privately in the town and villages. During an outbreak of plague, cholera, or the like, the State retains temporary paid *hakims* and *baids* for the benefit of the public.

Military and Panjgiráin Hospitals.

There is a Hospital Assistant and a compounder both at the Military and the Panjgiráin Hospitals. The total number of patients, out-door and in-door, at the Military Hospital during the first quarter of 1904 was 439. The Panjgiráin Hospital was only opened in December 1905.

Vaccination and Sanitation.

There is a Superintendent in charge of the Vaccination and Sanitation work. He is not an Hospital Assistant but is under the control of the State Medical Officer. Under him there are two vaccinators with a *chaprássi.* The number of vaccinations done during 1902-03 was 1,158. The people as a rule submit to vaccination of their children with a little persuasion; but some classes, such as the Banias, etc., still object to it. For sanitation work the Superintendent has under him 2 *daroghás*, 2 *jamadárs*, 16 *bhistis*, and 28 sweepers. These are only employed in Máler Kotla town.

The cleanliness of the surroundings of villages and their streets is occasionally inspected by the Police, as well as by the medical, sanitation, and vaccination staffs. The people are directed to remove accumulations of refuse.

The expenditure on vaccination and sanitation is met from Municipal Funds; while the Medical Department is maintained from the Local Rate. Medical Expenditure averages Rs. 7,000 a year. All the hospitals are free.

CHAPTER IV.—PLACES OF INTEREST.

CHAP. IV.

Places of interest.

Máler Kotla.

Máler Kotla is the only town in the State. It is situated 28 miles south of Ludhiána in north latitude 30°31′ and east longitude 75°59′. The population at the census of 1901 was 21,122.

The town is naturally divided into the two parts of Máler and Kotla, the latter of which is walled. These parts have lately been united by the construction of the new Moti Bazár.

History.

Sadr-ud-Dín, the founder of the Kotla family, settled at Bhumsi, a village which lay on a tributary of the Sutlej. This tributary, though now non-existent, is still traceable, its course being marked by the torrent which runs between Máler and Kotla during heavy rains. The population of Bhumsi rapidly increased and a new town was founded by him at Máler in 1466. It quickly became so large as to include the old village of Bhumsi within its boundaries. It remained the headquarters of the State till Bayazíd Khán, the fifth in descent from the Sadr-ud-Dín, founded Kotla in 1656. The name of Kotla is said to be derived from the *kot* or wall which was built round the town.

The houses of the ruling family are situated in the Kotla part of the town. A large Díwán-Khána (audience-hall) was built there by Nawáb Sikandar Ali Khán. The High School is near the Delhi Gate.

Shrine of Sadr-ud-Dín.

In the Máler part of the town is situated the Mausoleum of Sheikh Sadr-ud-Dín. Every Thursday, a fair is held at the shrine when offerings are made in the shape of money, jewellery, and grain. On the first Thursday of every lunar month, the fair is much larger and more important, thousands of people attending. It is strange that these fairs are mostly attended by Hindús, though Sadr-ud-Dín was a Muhammadan Saint.

The Moti Bazar.

A new bázar, connecting Máler and Kotla, was made in 1904-05 in accordance with plans approved by the Regent. It is called the Moti Bázar and is one of the handsomest in the Punjab. All the shops are two-storied, made of red brick, and of a uniform design. The street is wide enough to allow four Courts to pass at one time and it is lit by lamps attached to iron-poles in the middle of the street. The whole effect is excellent.

Grain-Market.

A new and large grain-market, the Ahmad Ganj, named after the Regent has also been recently constructed. It adjoins the Moti Bázar. The parade-ground and cantonments lie outside the city. The Railway Station, constructed on plans approved by the State, is about a mile south of Kotla.

Municipal Committee.

Máler Kotla, Killa Rahmatgarh, and Jamálpúra were constituted Municipalities in December 1905. They have the same Committee, the working of which has been described in Section E of Chapter III.

Killa Rahmatgarh lies about a mile to the south-east of Máler Kotla and has a population of 1,418 souls. It was founded by Rahmat Alí Khán early in the 19th century. Most of the Offices and Courts of the State are situated in Rahmatgarh and a Post Office has also been opened there.

CHAP. IV.

Places of interest.

Killa Rahmatgarh.

Jamálpúra is a large village of 2,079 souls near Máler Kotla. It was built by Jamál Khán about the end of the 15th century and contains the State Jail. It has lately been constituted a Municipality along with Máler Kotla.

Jamálpúra.

APPENDIX I.

GENEALOGY OF THE MALER KOTLA FAMILY.

APPENDIX I.

GENEALOGY OF THE MALER KOTLA FAMILY.

- SHANSAIB.
  - Bahrám.
    - Sháh Jalál-ud-dín, founder of the Ghor Dynasty.
    - Jamál-ud-dín Hussain.
      - Sháh Muizz-ud-dín
        - Sháh Hussain.
          - Ibráhím Lodi.
            - Sayaure.
              - Parange.
                - Umar Khel.
                  - Isháq.
                    - Shahu Khel.
                      - Ahmad Khel.
                        - Bahrám.
                          - Malik Kála.
                            - Sultán Bahlol Lodi.
                              - Nizám Khán.
                                - Ibráhím Khán.
                                - Jalál Khán.
                              - Táj Murassa Begam, (daughter).
                              - Sultán Ala-ud-dín Khán.
          - Ghilzai.
          - Sarwání.
            - Sarípál.
              - Suri.
                - Shaikh Ahmad Qabúl.
                  - Shaikh Mahmúd.
                    - Shaikh Ibráhím.
                      - Mahmúd Zai.
                        - Shaikh Músa.
                          - Ahmad Jawanmard.
                            - Shaikh Sulaimán Dána.
                              - Shaikh Malik Qattal.
                                - Shaikh Ali Sháhbáz.
                                  - Shaikh Ahmad Zinda Pír.
                                    - Shaikh Sadr-ud-dín, Sadr-i-Jahán, (to be continued on page III.)

- Shaikh Sadr-ud-dín, Sadr-i-Jahán, (continued from page ii.)
  - Shaikh Hasan.
    - Shaikh Sulaimán.
      - Khwája Khizar Khán.
        - Shaikh Sikandar.
          - Shaikh Sulaimán.
            - Shaikh Ináyat.
              - Faríd Khán.
                - Ináyat Khán.
                  - Madah Khán.
                    - Ghasi Khán.
                      - Rustam Khán.
                        - Khwája Khán.
                          - Fazle Khán.
                            - Asmat Ali Khán.
                            - Qamr-ud-dín Khán.
                              - Ináyat Ali Khán.
                              - Rahmat Ali Khán.
                            - Akbar Khán.
        - Shaikh Baliá-ud-dín Khán.
          - Shaikh Rukn-ud-dín.
            - Shaikh Ratan.
              - Fazil Khán.
                - Shaikh Faríd Khan.
                  - Rashid Khán.
                    - Nawázish Khán.
                      - Mahábat Khán.
                        - Fateh Muhammad Khán.
                          - Najíb Khán.
                            - Karámat Iláhi Khán.
                          - Farid Khán.
                            - Shaháb-ud-dín Khán.
                            - Masití Khán.
                              - Asmat Ali Khán.
                              - Akbar Ali Khán.
                                - Rustam Ali Khán.
                                - Sher Muhammad Khán.
                              - Qamr-ud-dín Khán.
                      - Saádat Khán.
                        - Ghulám Qádir Khán.
                          - Khalífa Kále Khán.
        - Alam Khán, (continued on page iv.)
        - Shaikh Fattu, (continued on page iv.)
      - Shaikh Yusuf, (to be continued on page iv.)
    - Shaikh Mirza, (to be continued on page v.)
  - Shaikh Muhammad Amín, (childless.)
  - Shaikh Isa, (continued on page vii.)
  - Shaikh Músa, (childless.)

Alam Khán—(continued from page iii.)

- Ibráhím Khán.
  - Kamal Khán.
    - Basar Khán.
      - Salím Khán.
        - Jibu Khán.
          - Allu Khán.
            - Behke Khán.
              - Sanndhe Khán.
              - Sher Khán.
    - Pír Khán.
      - Ghálib Khán.
        - Kale Khán.
          - Buláqi Khán.
            - Imám Bakhsh Khán.
              - Alif Khán.
            - Núr Khán.

Shaikh Fattu—(continued from page iii.)

- Shaikh Behlol.
  - Daulat Khán.
    - Niamat Khán.
      - Mujeeh Khán.
        - Roshan Khán.
          - Akke Khán.
            - Asadullah Khán.
              - Niamat Khán.
            - Fakhre Khán.
              - Roshan Khán.

Shaikh Yusuf, brother of Khwája Khizar Khan—(continued from page iii.)

- Bahlol Khán.
  - Shaikh Sikandar.
    - Shaikh Niámat.
      - Shaikh Twáhir Khán.
        - Shaikh Muhammad Khán.
          - Muhammad Nahir Khán.
            - Swaleh Khán.
              - Najábat Khán.
                - Sharfu Khán.
                  - Khizar Khán.
                    - Sher Khán.
                - Mastan Khán.
                  - Faujdár Khán.
          - Purdil Khán.
            - Ali Khán.
              - Hasan Khán.
                - Ghulam Muhammad Khán.
                  - Sarmast Khán.
                    - Major Ali Muhammad Khán.
                      - Ahmad Ali Khán.
                    - Muhammad Khán.

Shaikh Mirza—(continued from page iii.)

- Shaikh Razi-ud-dín.
  - Shaikh Jamal Khán.
    - Sháh Muhammad Khán.
      - Jalál Khán.
        - Hamíd Khán.
          - Alam Khán.
            - Khán Muhammad Khán,
              - Sultán Khán.
                - Jíwan Khán.
                - Babe Khán.
                - Jibbu Khán.
        - Sanndhe Khán.
          - Hasan Ali Khán.
            - Akbar Ali Khán.
              - Najib Khán.
                - Hasan Muhammad Khán.
                - Wiláyaṭi Khán.
              - Hakim Ali Khán.
                - Fateh Muhammad Khán.
              - Fajje Khán.
              - Mehme Khán.
                - Naurang Khán.
          - Ghulám Muhammad Khán.
            - Shaikh Abdulla Khán.
              - Shaikh Husain Khán.
                - Shaikh Sanndhe Khán.
    - Daulat Khán.
      - Rustam Khán.
        - Badal Khán.
          - Usmán Khán.
            - Muhammad Panáh.
              - Núr Khán.
                - Alif Khán.
- Shaikh Alá-ud-dín Khán—(to be continued on page vi.)

Shaikh Ala-ud-dín Khán—(continued from page v.)

- Ismail Khán.
  - Fázil Khán.
    - Ruku Khán.
      - Nigáheye Khán.
        - Abdul Samad Khán.
          - Ahmad Khán.
            - Ghulám Husain Khán.
              - Ghulám Hasan Khán.
                - Game Khán.
    - Asmat Khán.
      - Sardár Khán.
        - Ghulám Muhammad Khán.
          - Ata Muhammad Khán.
            - Bube Khán.
            - Nabi Bakhsh Khán.
              - Sube Khán.
              - Jange Khán.
        - Díndar Khán.
          - Isá Khán.
            - Tare Khán.
              - Fajje Khán.
                - Sardár Khán.
                  - Faujdár Khán
- Sikandar Khán.
  - Rasúi Khán.
    - Faizullah Khán.
      - Azizullah Khán.
        - Núr Khán.
          - Ata Muhammad Khán.
          - Jahángír Khán.

Shaikh Isa—(continued from page iii.)

- Muhammad Sháh.
  - Khwája Maudúd Khán.
    - Abdul Haq.
      - Muhammad Sháh.
      - Muhammad Husain.
      - Sultán Muhammad.
    - Abdul Razzáq Khán.
      - Sháh Muhammad Khán.
        - Umar Khán.
          - Afzal Khán.
            - Sikandar Khán.
              - Muhammad Pír Khán.
                - Muhammad Sharf Khán.
                  - Bule Khán.
                    - Faujdár Khán.
                      - Sher Jang Khán.
                      - Sikandar Khán.
                        - Hasan Muhammad Khan.
                      - Bahádur Jang Khán.
                  - Dude Khán.
                    - Karm Iláhi Khán.
                      - Barkat Khán.
                    - Mehr Iláhi Khán.
                      - Nawáb Khán.
                      - Sher Jang Khán.
                      - Faiz Muhammad Khán.
                        - Hayát Muhammad Khán.
          - Shujaat Ali Khán.
            - Bakhtiyár Khán.
              - Muhammad Zamán.
                - Mangle Khán.
                  - Karím Bakhsh Khán.
                    - Fateh Jang Khán.
                      - Ghulám Muhammad Khán.
                      - Sháh Muhammad Khán.
              - Hasan Yár Khán.
                - Rahmat Yár Khán.
                  - Budhe Khán.
                    - Ghulám Sharf Khán.
                      - Sardár Khán.
                    - Mohkam Ali Khán.
                      - Naurang Khán.
                  - Umar Khán.
                    - Wiláyati Khán.
                      - Wali Muhammad Khán.
                      - Sher Muhammad Khan.
            - Jíwan Khán (to be continued on page viii.)
      - Sultán Muhammad Khán (to be continued on page ix.)
      - Muhammad Husain Khán (to be continued on page ix.)
    - Fateh Muhammad Khán, (to be continued on page x.)
  - Mansúr Khán (to be continued on page xvii.)
  - Shaikh Abdullah (to be continued on page xx.)

Jíwan Khán—(continued from page vii.)

- Asuf Khán.
  - Sáhibdád Khán.
    - Káde Khán.
      - Hákim Ali Khán.
        - Ghairat Ali Khán.
        - Asghar Ali Khán.
        - Ata Muhammad Khán.
      - Ghulám Nabi Khán.
- Abdul Nabi Khán.
  - Dána Khán.
    - Imám Ali Khán.
      - Dost Muhammad Khán.
      - Faiz Muhammad Khán.
- Jabbal Khán.
  - Sháh Ali Khán.
    - Ghuláb Khán.
      - Qamr-ud-dín Khán.
      - Nizám-ud-dín Khán.

Sultán Muhammad Khán—(continued from page vii.)

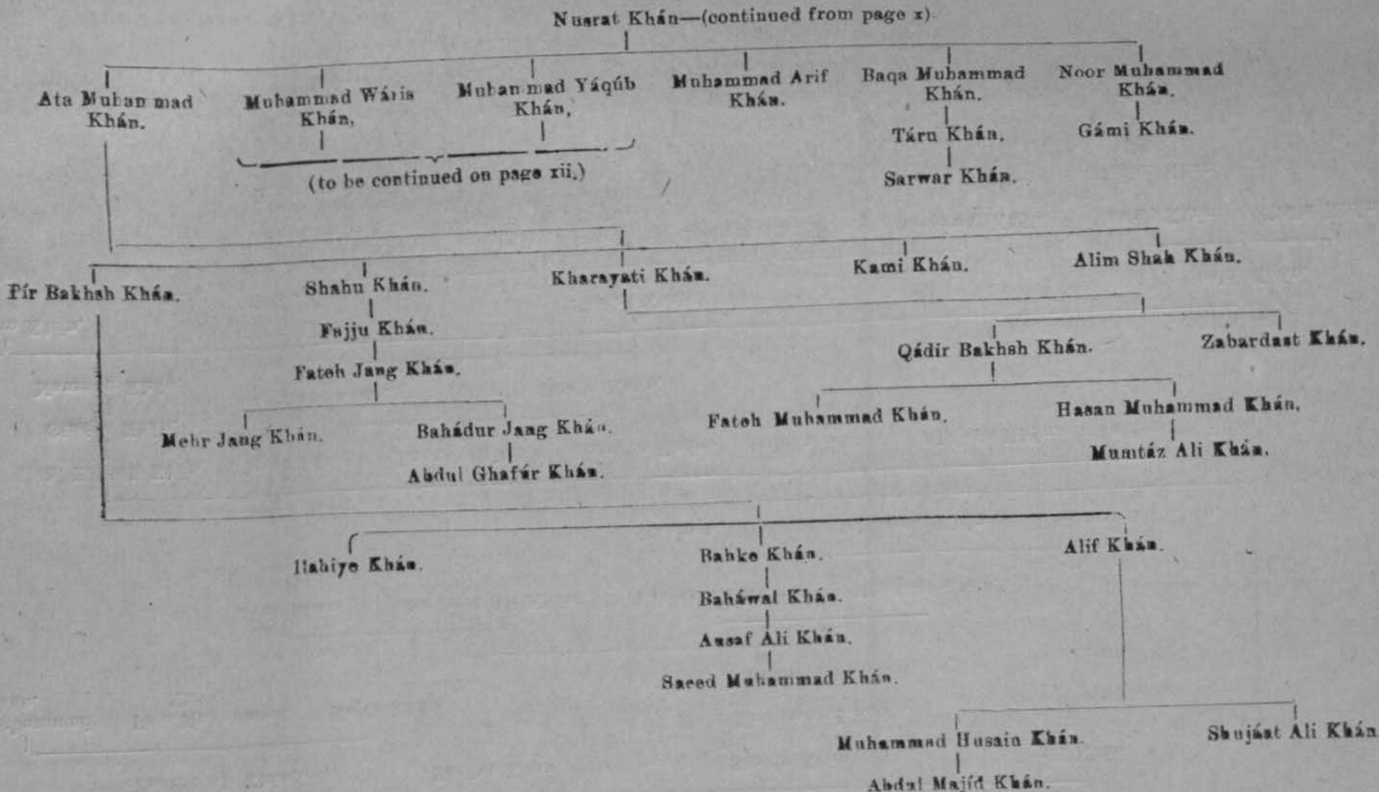
- Sayad Muhammad Khán.
  - Bhure Khán.
    - Mani Khán.
      - Bube Khán.
        - Yáqúb Khán.
          - Umar Ali Khán.
        - Barkat Khán.
        - Shajáwal Khán.
- Saif Khán.
  - Muhammad Fazil Khán.
    - Jamál Khán.
      - Khuda Bakhsh Khán.
        - Ali Bakhsh Khán.
          - Karm Iláhi Khán.
          - Sardár Khán.
        - Pehle Khán.
          - Wazír Khán.
          - Amír Khán.
        - Kále Khán.
          - Nawáb Khán.
        - Habíb Khán.
          - Niámat Ali Khán.
- Rasúl Khán.
  - Núr Khán.
    - Lál Khán.
      - Sultán Khán.
        - Ali Muhammad Khán.
          - Amánat Ali Khán.

Muhammad Husain Khán—(continued from page vii.)

- Abdul Mali Khán.
  - Ismail Khán.
    - Gende Khán.
      - Sanndhe Khán.
        - Makkhan Khán.
          - Sahan Khán.
            - Iláhi Bakhsh Khán.
              - Rajab Ali Khán.
                - Bodu Khán.
            - Fateh Ali Khán.
              - Abde Khán.
              - Shajáwal Khán.
            - Fateh Muhammad Khán.
              - Bahádur Jang Khán.

Fateh Muhammad Khán—(continued from page vii.)

- (1) Nawáb Muhammad Bazid Khán.
  - Chaudhri Muhammad Ikhtiyár Khán.
    - Gházi Khán.
      - Mahbúb Khán.
        - Jamál Khán.
          - Amin Khan.
          - Mohkám Khán.
          - Roshan Khán.
        - Murtaza Khán.
          - Bakhshu Khán.
          - Hákim Khán.
            - Allahdád Khán.
              - Mansab Khan.
            - Faiz Muhammad Khan.
          - Háji Khán.
    - Háji Khán.
    - Wali Muhammad Khán.
      - Hamíád Khán.
        - Zulfiqár Khán.
          - Mallu Khán.
            - Jamu Khán.
            - Gonde Khán.
              - Niámat Ali Khán.
                - Muhammad Nawáz Khán.
                - Umardráz Khán.
              - Wiláyati Khán.
                - Nathu Khán.
            - Kutb-ud-dín Khán.
        - Ballu Khán.
        - Bakhshu Khán.
        - Rashíd Khán.
      - Ghulám Raza Khán.
        - Imám Bakhsh Khán.
        - Rure Khán.
        - Rahím Bakhsh Khán.
      - Rashíd Khán.
    - Nusrat Khán (to be continued on page xi.)
    - Nahar Khán.
      - Jíwan Khán.
        - Mange Khán.
          - Mehnu Khán.
            - Alladia Khán.
              - Mansab Ali Khán.
                - Abdul Rahmán Khán.
                - Faiz Muhammad Khán.
              - Hashmat Ali Khán.
        - Niábat Khán.
        - Asálat Khán.
        - Muhammad Ghaus Khán.
        - Sháhbáz Khán.
  - Sarwar Khán.
    - Muhammad Zamán Khán.
    - Kháliq Dai (daughter.)
  - (2) Nawáb Feroz Khán (to be continued on page xiii.)
  - Chaudhri Husain Khán (to be continued on page xvi.)
  - Bahbal Khán.


Nusrat Khán—(continued from page x).
Ata Muhammad Khán.
Muhammad Wáris Khán.
Muhammad Yáqúb Khán.
(to be continued on page xii.)
Muhammad Arif Khán.
Baqa Muhammad Khán.
Táru Khán.
Sarwar Khán.
Noor Muhammad Khán.
Gámi Khán.
Pír Bakhsh Khán.
Shahu Khán.
Fajju Khán.
Fateh Jang Khán.
Mehr Jang Khán.
Bahádur Jang Khán.
Abdul Ghafúr Khán.
Kharayati Khán.
Kami Khán.
Alim Shah Khán.
Qádir Bakhsh Khán.
Zabardast Khán.
Fateh Muhammad Khán.
Hasan Muhammad Khán.
Mumtáz Ali Khán.
Ilahiye Khán.
Bahke Khán.
Baháwal Khán.
Ausaf Ali Khán.
Saeed Muhammad Khán.
Alif Khán.
Muhammad Husain Khán.
Abdul Majíd Khán.
Shujáat Ali Khán.

- Muhammad Wáris Khán—(continued from page xi).
  - Ghairat Ali Khán.
    - Gházi Khán.
      - Hadáyat Khán.
        - Barkat Ali Khán.
          - Dost Muhammad Khán.
          - Faiz Muhammad Khán.
          - Najib Khán.
            - Abde Khán.
              - Shajáwal Khán.
            - Salámat Ali Khán.
        - Sardár Khán.
          - Umras Ali Khán.
          - Faujdár Khán.
            - Rahmat Ali Khán.
            - Mansab Khán.
            - Hashmat Ali Khán.
        - Sharfu Khán.
          - Mehr Muhammad Khán.
            - Hayát Muhammad Khán.
        - Bazid Khán.
  - Sher Ali Khán.
  - Nazámul Mulk.
  - Bagh Ali Khán.
- Muhammad Yáqub Khán—(continued from page xi).
  - Talib Muhammad Khán.
    - Iláhi Bakhsh Khán.
      - Ghaiye Khán.
        - Naurang Khán.
    - Ahmed Khán.
    - Daunde Khán.
      - Bube Khán.
        - Karím Khán.
        - Shadal Khán.
          - Rajab Ali Khán alias Rajje Khán.
            - Hashmat Ali Khán.
          - Faiz Ali Khán alias Fattu Khán.
          - Mehr Ali Khán.
          - Shajáwal Khán.
        - Badal Khán.
          - Nawáb Khán.
            - Nathu Khan.
          - Bollu Khán.
      - Bholle Khán.
    - Azizulla Khán.
    - Sadulla Khán.
    - Abdulla Khán.
    - Mahfuzulla Khán.

- (2) Nawáb Feroz Khán —(continued from page x).
  - (3) Nawáb Sher Muhammad Khán.
    - Ghulám Rasúl Khán.
    - Ghulám Ali Khán.
    - Akbar Ali Khán.
    - Fateh Ali Khán.
    - (4). Nawáb Ghulám Husain Khán.
      - Qádir Bakhsh Khán.
      - Sarbaland Khán.
      - Sikandar Ali Khán.
      - Mehdi Khán.
        - Jalle Khán.
          - Jati Khán.
            - Hasan Muhammad Khán.
            - Babu Khán.
              - Sharif Khán.
              - Latif Khán.
            - Fattu Khán.
        - Alim Shah Khán.
        - Jafar Ali Khán.
          - Darbári Khán.
          - Jalle Khán.
            - Abdulla Khan.
          - Nathu Khán.
            - Jabe Khán.
              - Karm Khán.
                - Malak Muhammad Khán.
                - Fazl Muhammad Khán.
                - Faiz Muhammad Khán.
              - Gámu Khan.
                - Abde Khán.
          - Jange Khán.
          - Husain Khán.
            - Sube Khán.
            - Sher Khán.
        - Darbári Khán.
      - Fateh Ali Khán.
      - Saádat Ali Khán (to be continued on page xiv).
      - Tália Muhammad Khán (to be continued on page xiv).
      - Khán Bahádur Khán (to be continued on page xiv).
    - (5). Nawáb Jamál Khán (to be continued on page xxi).
    - Mirza Khán (to be continued on page xv).
    - Muhammad Azím Khán (to be continued on page xv).
  - Khawája Khizer Khán.

- Saádat Ali Khán— (continued from page xiii).
  - Ahmad Khán.
    - Shahji Khán
      - Doude Khán.
        - Jhandu Khán
        - Bube Khán.
      - Amánat Ali Khán.
        - Ali Nawáz Khán.
        - Ináyat Ali Khán.
          - Mubárak Ali Khán.
        - Barkat Ali Khán.
          - Jafar Ali Khán.
        - Muhabbat Ali Khán.
        - Wiláyat Ali Khán.

- Talia Muhammad Khán— (continued from page xiii).
  - Najíb Khán.
    - Muhammad Khán.
  - Mode Khán.
  - Nabi Bakhsh Khán.
    - Nasrullah Khán.

- Khan Bahadur Khán— (continued from page xiii).
  - Báje Khán.
  - Daler Khán.
  - Jahangir Khán.
    - Bazíd Khán.
  - Alamgir Khán.

- **Mirza Khán**—(continued from page xiii).
  - Muhammad Aman Khán.
  - Ghulám Sharf Khán.
    - Feroze Khán.
      - Ghulám Nabi Khán.
        - Dost Muhammad Khán.
          - Fazl-ul-Rahmán Khán.
          - Abdul Rahmán Khán.
          - Habíb-ul-Rahmán Khán.
    - Faujdár Khán.
      - Rahmat Ali Khán.
      - Qásim Ali Khán.
        - Alládad Khán.
    - Sardár Khán.
      - Zabardast Khán.
        - Khair-ud-dín Khán.
        - Badar-ud-dín Khán.
      - Rahím Bakhsh Khán.
        - Bahádur Jang Khán.
          - Barkat Ali Khán.
        - Sher Khán.
      - Gharíb Bakhsh Khán.
        - Tegh Ali Khán.
        - Shujáat Ali Khán.
          - Abdul Azíz Khán.
            - Abdul Hameed Khán.
      - Gámu Khán.
        - Abdul Karím Khán.
          - Malak Muhammad Khán.
          - Ramzán Khán.
          - Yusaf Khán.
  - Muazzim-ud-dín Khán.
    - Makhdúm Bakhsh Khán.
  - Iláhi Bukhsh Khán.
    - Karím Bukhsh Khán.
      - Noor Muhammad Khán.
        - Ahmed Bukhsh Khán.
          - Ali Sher Khán.
        - Muhammad Bukhsh Khán.
          - Qádir Bukhsh Khán.
            - Nawáb Khán.
              - Abdul Salám Khán.
            - Abdulla Khán.

- **Muhammad Azím Khán**—(continued from page xiii).
  - Rahmán Khán.
    - Imám Bukhsh Khán.
      - Niámat Ali Khán.
        - Anwar Khán.
          - Colonel Mehr Muhammad Khán.

Chaudhari Husain Khán—(continued from page x.)

Khawája Muhammad Khán *alias* Khawáj Muhammad Khán.

- Muhammad Shah Khán.
- Muhammad Isháq Khán.
  - Muhammad Bazíd Khán.
    - Muhammad Sai Khán.
    - Rahmán Khán.

- Mansúr Khán—(continued from page vii).
  - Hátim Khán.
    - Muhammad Farid Khán.
      - Isa Khán.
        - Daulat Khán.
          - Shamsheer Khán.
            - Alladia Khán.
              - Nazar Muhammad Khán.
                - Najaf Khán.
                  - Ghulám Faríd Khán.
                  - Niamat Ali Khán.
                    - Fateh Muhammad Khán.
                      - Najábat Khán.
                      - Jafar Ali Khán.
                      - Azmat Ali Khán.
                      - Muhammad Ali Khán.
                - Daulat Khán.
                  - Hasse Khán.
                    - Sher Khán.
                      - Malak Muhammad Khán.
                        - Jafar Ali Khán.
                    - Ditte Khán.
        - Naurang Khán.
          - Kásim Khán.
            - Faiz Muhammad Khán.
              - Ghulám Amír Khán.
                - Jangbáz Khán.
                  - Sarfaráz Khán.
                    - Dittu Khán *alias* Umardráz Khán.
                      - Mehr Muhammad Khán.
                        - Muhammad Sádiq Khán.
                      - Muhammad Husain Khán.
                    - Barkat Ali Khán.
                      - Gamu Khán.
                    - Naurang Khán.
                    - Saundhe Khán.
                      - Abde Khán.
                      - Hasan Muhammad Khán.
                      - Abdul Karím Khán.
                      - Mohamedi Khán.
                    - Jati Khán.
                      - Akbar Khán.
                      - Ata Muhammad Khán.
          - Abid Khán.
            - Pír Bakhsh Khán.
              - Kure Khán.
                - Umar Ali Khán.
                  - Fateh Jang Khán.
                    - Hayát Muhammad Khán.
      - Mansúr Khán.
        - Misri Khán.
          - Diláwar Khán.
            - Muizzulla Khán.
              - Rasúl Khán.
                Bakhkho widow.
      - Saleem Khán (to be continued on page xviii).
    - Alim Khán (to be continued on page xix).
    - Jáfar Khán (to be continued on page xix).

Muhammad Saleem Khán—(continued from page xvii).

- Muhammad Murád Khán.
  - Sulemán Khán.
    - Ahmad Shah Khán.
      - Ballu Khán.
        - Sardár Khán.
          - Sher Khán.
            - Fattu Khán.
            - Hasan Muhammad Khán.
            - Khair Muhammad Khán.
            - Shah Muhammad Khán.
          - Jabe Khán.
          - Qásim Ali Khán.
      - Madu Khán.
        - Iláhi Bahsh Khán.
          - Yaqúb Khán.
            - Bábu Khán.
    - Fakhr-ud-dín Khán.
      - Karm Khán.
        - Jiwo Khán.

- Alam Khán—(continued from page xvii).
  - Sadr Khán.
    - Shams Khán.
      - Qásim Ali Khán.
        - Asad Ali Khán.
          - Najíb Khán.
            - Barkat Ali Khán.
            - Jamu Khán.
            - Rukn-ud dín Khan.
              - Fazl Muhammad Khán.
              - Sher Ali Khán.
          - Habib Khán.
            - Dargáhi Khán.
              - Ghairat Ali Khán.
                - Yaqúb Khán.
                - Muhammad Yusuf Khán.
              - Qásim Ali Khán.
              - Allahdád Khán.

- J'afar Khán—(continued from page xvii).
  - Abdul Rasúl Khán.
    - Allah Bakhsh Khán.
      - Abdul Rasúl Khán.
        - Hatím Khán.
          - Muhammad Bakhsh Khán
            - Bube Khán.
            - Sube Khân.
            - Mehme Khán.
              - Wiláyati Khán.
                - Inápat Ali Khán.
                - Mubárak Ali Khán.
        - Rashíd Khán.
          - Husain Khán.
            - Muhammad Khán.
              - Jamu Khán.
              - Ata Muhammad Khán.
            - Bube Khán.
              - Jáfar Khán.
              - Akbar Khán.

Muhammad Abdulla Khán *alias* Sheikh Abdullah—(continued from page vii).

Khán Jahán Khán.

Muhammad Shafi.

Muhammad Arif Khán.

Mohkam Ali Khán.

Mehmún Khán *alias* Mahriye Khán.

Súbe Khán.

Phogu Khán.

- Jhandu Khán.
- Sherjang Khán.
  - Dost Muhammad Khán.

(5) Nawáb Jamál Khán—(continued from page xiii).

- By first wife.
  - (6) Nawáb Bhikhan Khán.
    - Fateh Khán.
      - Faiz-ulla Khán.
      - Kále Khán.
      - Faiz Tálab Khán.
        - Yáqúb Ali Khán.
    - (11) Nawáb Muhammad Wazír Ali Khán.
      - (12) Nawáb Amír Ali Khán.
        - (13) Nawáb Mahbúb Ali Khán.
          - (14) Nawáb Muhammad Sikandar Ali Khán.
            - Muhammad Roshan Ali Khán.
            - Ghaus Muhammad Khán.
  - (7) Nawáb Bahádur Khán.
    - Daler Khán.
      - Ghulám Muhammad Khán.
        - Muhammad Ahsan Ali Khán.
          - Muhammad Mohsin Ali Khán *alias* Muhammad Mohsin.
          - Muhammad Ahsan Ali Khán *alias* Nathu Khán.
          - Muhammad Naqi Khán *alias* Ali Naqi Khán.
        - Muhammad Báqir Ali Khán.
        - Muhammad Ali Khán.
          - Muhammad Abdul Rahmán Khán.
          - Muhammad Abdulla Khán.
          - Muhammad Abdul Rahím Khán.
        - Muhammad Zulfiqár Khán.
          - Niámat Ali Khán.
        - Muhammad Yúsuf Ali.
    - Himmat Khán.
      - Faiz Ali Khán, (Mussammat Murád Bibi, widow left).
      - Ahmad Ali Khán.
      - Muhammad Rustam Ali Khán (by wife Bu Sáhi Ján).
        - Nasrulla Khán.
- By second wife.
  - (8) Nawáb Umar Khán.
    - Husain Ali Khán.
      - Sultán Khán.
      - Turrabáz Khán.
    - Muhammad Ali Khán.
  - (9) Nawáb Asad-ullah Khán.
    - Muhammad Ali Khán. (first wife Mussammát Nur-un-nissa, second wife Mussammát Sultán Bibi). (Bu Jhando, daughter).
  - (10) Nawáb Ata-ullah Khán (to be continued on page xxii).
  - Amánat Khán.

- (10) Nawáb Muhammad Ata-ullah Khán—(continued from page xxi).
  - Muhammad Rahmat Ali Khán.
    - Muhammad Diláwar Ali Khán.
      - (15) Nawáb Muhammad Ibráhím Ali Khán.
        - Sáhibzáda Muhammad Isháq Ali Khán.
        - (16) Sáhibzáda Muhammad Ahmad Ali Khán (heir-apparent).
          - Sáhibzáda Muhammad Iftikhár Ali Khán.
        - Sáhibzáda Muhammad Jáfar Ali Khán.
      - Wiláyat Ali Khán.
      - Akbar Ali Khán.
      - Muhammad I'náyat Ali Khán.
        - Muhammad Ibad-ullah Khán.
    - Sa'adat Ali Khán.
  - Imám Ali Khán.
    - Sarfráz Ali Khán.
  - Fazl Ali Khán.



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PUNJAB

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VOLUME XV A.

LUDHIANA DISTRICT

AND

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